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ORIGINAL LECTURES.

SOME FORMS OF MYELITIS, THEIR DIAGNOSIS FROM EACH OTHER AND FROM HYSTERICAL PARAPLEGIA.

Two Clinical Lectures delivered at the Philadelphia Hospital.

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(Reported by William H. Morrison, M.D.)

LECTURE II.

GENTLEMEN: When we last met I considered myelitis in general, and presented to you cases both of diffused myelitis and subacute generalized myelitis of the anterior horns, particularly dwelling upon the latter disease. I shall now discuss (with Case 2 of last week's lecture again before us):

1. The diagnosis of subacute or chronic generalized myelitis of the anterior horns (poliomyelitis, anterior subacute or chronic) from some other forms of myelitis and from spinal congestion.

2. The diagnosis of subacute or chronic generalized myelitis of the anterior horns from hysterical paraplegia.

3. The diagnosis of hysterical paraplegia from forms of spinal disease other than subacute or chronic myelitis of the anterior horns.

Acute anterior poliomyelitis, better known as spinal infantile paralysis, or the essential paralysis of children, and also sometimes spoken of as the acute atrophic spinal paralysis of children, is a disease which has now been long described, and is quite thoroughly understood. Most educated physicians would recognize it without trouble. A disease essentially the same occurs, but much more rarely, in the adult—the acute spinal paralysis of adults. In either of these forms of disease, after an acute onset, with fever, and sometimes with diarrhœa, vomiting, twitching, tremors, and even convulsions, marked paralysis of variable distribution, but usually of a few muscles or groups of muscles, is rapidly developed. Some improvement of the paralysis nearly always takes place, but complete restoration is not common. The muscles which remain paralyzed become flaccid, rapidly atrophy, become cold and dusky, show the reactions of degeneration, and in unfavorable cases eventually cease altogether to respond to electricity. Both the skin and tendon reflexes are much impaired or absolutely abolished; there is arrest of development of the bones; and striking deformities of the joints and limbs often occur. In the adult the disease differs from the affection as seen in children mainly in the fact that the trophic changes and deformities are not so decided in the former because of the fuller development of the bones, joints, and ligaments involved. This is a rapid sketch of the infantile paralysis, already, no doubt, familiar to most of you.

The case before you last week and again to-day, and the one whose history I read at the last lecture, differ from cases of these familiar types, in that the cases of subacute or chronic generalized myelitis of the anterior horns occur usually in adults, and rarely in children; they are more general and more uniformly bilateral in their manifestations; the paralysis extends from point to point, usually from below upwards; and, finally, in that the tendency to complete recovery is greater. (Bramwell's *Diseases of the Spinal Cord.*)

In order to diagnosticate subacute myelitis of the anterior horns from *diffused myelitis*, acute or chronic, a careful study of the symptoms is all that is necessary. In diffused myelitis, as in the case of arsenical paralysis which I have shown, you have not only paralysis, absence of reflexes, trophic changes, and the reactions of degeneration, which are present in the woman before us, but, in addition, well-marked disturbances of sensation; because, in diffused myelitis, there is involvement of all parts of the cord, the sensory as well as the motor and trophic regions being affected. If this woman, in addition to her motor, trophic, vaso-motor, and reflex phenomena, also presented certain sensory phenomena, as anæsthesia, more or less complete, the probabilities would be in favor of diffused myelitis. I believe that in many of these cases of widely distributed anterior poliomyelitis the myelitis is more or less diffused in the beginning, but the brunt of the inflammation is borne by the anterior horns while the rest of the cord rapidly clears up.

Landry's paralysis, or acute ascending paralysis, is similar in some of its features to subacute generalized anterior poliomyelitis, and by some the two are regarded as identical. Westphal, quoted by Seguin in his monograph on *Poliomyelitis*, gives the following points of difference: In Landry's paralysis, asphyxia is frequent, the muscles do not lose their faradic contractility. It usually develops suddenly, the patient first noticing muscular weakness, which rapidly deepens into complete paralysis. The paralysis most commonly begins first in the legs, and within a few hours or days becomes absolute. Weakness in the arms is then noticed, and this deepens into paralysis. Then swallowing and respiration become affected, and the patient often dies, commonly in from three or four to fifteen or twenty days, the average duration being from eight to twelve days. The pathology of the disease is obscure. One point in which it is said to differ from subacute inflammation of the anterior horns is in that, although the paralysis is so complete and leads so quickly to death, there are in most cases no reactions of degeneration. In Landry's paralysis, again, as a rule, there is no sensory disturbance, and the bladder and bowels are not involved, nor are the muscles much atrophied. It has a typical, peculiar, rapidly ascending course, which leads often but not always to death. Some time ago I saw a

young lady die of this affection much to the surprise of her physician, who had supposed that she was suffering from hysterical paralysis.

Hæmatomyelitis sometimes simulates subacute anterior poliomyelitis. A striking peculiarity of hæmatomyelitis is the sudden paralysis, which may develop even more rapidly than in true Landry's paralysis, even in a few minutes. It usually first appears in the legs, then the arms are affected, with pain in the back, and other sensory symptoms. The differences between it and Landry's paralysis are in the very sudden onset, and prominent symptoms of irritation. The following are the notes of a case of this kind, with post-mortem, observed in this hospital:

Case 4.—J. R., colored, aged 60, was brought to the hospital with the statement that he had suddenly a stroke of paralysis eight days previous, since which time he had been getting worse. When admitted he was sinking rapidly, the breathing was short and labored, heart's action feeble and irregular, pulse 104, feeble, and occasionally intermitting. He could not protrude the tongue beyond the lips, and swallowed with difficulty, the act being accompanied with a choking sensation, and the ejection of frothy mucus. He spoke with great difficulty, and complained of sharp pain in the back, between the shoulders and up and down the spine. He had no headache. The bowels had not been opened, but the urine was passed involuntarily. He had a moderate amount of power in his arms. The legs were stiff and motionless. The right axillary temperature was 102°; the left 102.5° F. Every few minutes there was a spasmodic jerking of the legs and body, but no trismus. An autopsy showed minute hemorrhages throughout the gray matter of a softened cord.

Another trouble which often closely resembles the affection under discussion is *spinal congestion*. The patients come with a history that after exposure they have lost the use of their lower limbs, and sometimes of the upper. Heaviness and pain in the back are complained of, and also more or less pain from lying on the back. Numbness in the legs and other disturbance of sensation are also present. The electrical reactions are changed only to a slight extent, if at all. The paralysis may be almost altogether complete. Such patients exhibit evidences of the involvement of the whole cord, but not a complete *destructive* involvement. I am able to show you a case, which this very day leaves the hospital cured. The following is her history:

Case 5.—L. P., colored, age unknown, had been in her ordinary health until November 24, 1884. At this time, while washing, she noticed swelling of the feet which soon became painful, finally associated with loss of power. She had also a girdling sensation about the abdomen, and a pain in the back. She was admitted to the hospital one week later, at which time there was retention of feces and urine. She had some soreness and tenderness in the epigastrium. She complained of dyspnœa which was apparently independent of any pulmonary trouble. It was necessary to use the catheter for one week, by which time control of the bladder had been regained. The bowels were regulated by purgatives. She was given large doses of ergot and bromide and iodide of potassium, and slowly improved, and after a time was able to get out of bed and walk with the aid of a chair. An examination at this time showed that the girdling pain had disappeared. There was distinct loss of sensation. Testing the farado-contractility, it was found that in the right leg, the flexors only responded to the slowly interrupted current, while in the left both flexors and extensors responded to the interrupted current. In both limbs with the galvanic current, the flexors responded to twenty cells, while the extensors responded to fifty cells. She gradually improved, chiefly under electricity, and is now able to leave, having been in the hospital three months.

Let us now turn to the question of the diagnosis of subacute myelitis of the anterior horns from hysterical paraplegia.

"A young woman," says Bennett,[1] "suddenly or gradually becomes paralyzed in the lower extremities. This may, in a few days, weeks, or months, in different cases, become complete, or may remain partial. There is no loss of sensation, no muscular rigidity, no cerebral disturbances, nor any affection of the bladder or rectum. The patient's general health may be robust, or it may be delicate. She may be of emotional and hysterical temperament, or, on the contrary, of a calm and well-balanced disposition. At first, there is no muscular wasting, but, as the disease becomes chronic, the limbs may or may not diminish in size. The entire extremity may be affected or only certain groups of muscles. Finally the disease may partially or entirely recover, or may remain almost unchanged for years."

Two facts are often overlooked in this connection, first, that poliomyelitis is just as liable to occur in the hysterical as in any other class; and, secondly, that the symptoms of hysterical paraplegia and poliomyelitis may go hand in hand.

Following the proper clinical method, let me next show you this case of hysterical paraplegia.

Case 6.—This patient has been in this hospital for a number of years. I saw her for the first time, eight years ago, at which time she was more helpless than she is at present. For a time she was in another hospital; this was two years before I saw her. While there she regained the use of her limbs, and left the hospital walking. This power had been lost when she came to this hospital, but in the course of a few months she regained the use of the limbs, and was able to walk again. This did not continue and she again relapsed. In other words, we have a history of complete or almost complete paralysis of the lower limbs with several recoveries and several recurrences of the helpless condition. As you can see, she has a certain amount of power in the muscles of the lower extremity, but this is not marked, and she states that she has no feeling in the legs. The patellar reflex is well preserved, or if anything exaggerated. There is even a little clonus. The arms are not affected, and she has no trouble with the bladder or bowels, nor has there been any affection of the voice. In spite of the long disuse of the legs, they are still well preserved. Testing next as to farado-contractility, we find it well preserved, and finding this, it is, as a rule, not necessary to employ the galvanic current, as galvano-contractility is usually present under these circumstances.

We have in these two young women the points of differential diagnosis between subacute or chronic mye-

[1] Lancet, vol. ii. p. 842, November, 1882.

litis of the anterior horns and hysterical paraplegia. In diagnosticating hysterical paraplegia from diffused myelitis, we would be governed practically by the same points. The history is somewhat different. In the hysterical case, there is a history of at least two occasions on which she recovered the use of the limbs for a long period. In the other case, paralysis has been present from a definite time until the present. This history of frequent attacks of paralysis, in connection with other hysterical symptoms, is very suggestive although not always positive.

The patellar reflex is retained, often exaggerated, and rarely lost in hysteria, while it is usually lost in poliomyelitis. Electro-muscular contractility is often normal in hysterical paralysis; although sometimes it is slightly diminished quantitatively to both faradism and galvanism. The various muscles of one limb respond about equally to electricity. There are no reactions of degeneration in hysterical paralysis as in poliomyelitis; the cutaneous plantar reflex is impaired; bed-sores are usually absent, as are always acute trophic eschars, and the nail-markings present both in generalized subacute myelitis and diffused myelitis. True muscular atrophy is also wanting in hysterical paraplegia, although the limbs may be lean or wasted from the original thinness of the patient or from disuse. The temperature of the limbs is usually good. There is no blueness nor redness of the limbs, nor are the bowels and bladder uncomfortably affected. In the case of poliomyelitis the disease came on with diarrhœa and fever; often also it comes with vomiting and with pain. The paralysis first affected the leg, and then progressing affected the arms.

This case of hysterical paraplegia might possibly be considered as one of spasmodic tabes or spastic spinal paralysis, of remarkably slow progress. It is often difficult to distinguish between the two. Hughes Bennett, and Muller, of Gratz, call attention to the fact that young women may exhibit all the signs of primary spastic paralysis, simulating sclerosis, and yet recover.[1] If I did not know the long-continued history, I might think it was possible that this was a case of lateral sclerosis, and it may be that real degenerative disease of the cord has gradually occurred in this patient, but I know that she has been on her feet on two occasions after having been completely paralyzed. If, however, a recent case of this kind came to you, you can see how difficult it might be to distinguish the two affections, and you would have to fall back on a few things to make the diagnosis.

Spondylitis, or caries of the vertebræ, is sometimes difficult to distinguish from hysterical paraplegia, or hysterical paraplegia from it, or you may have both in the same case. Likewise, painful paraplegia from cancer or sarcoma of the vertebræ may present some difficulties.

Case 7.—We have here a case of which the following is a short account: L. K., aged 44, when two years old met with a fall which was followed by disease of the spine, and has resulted in the characteristic deformity of Pott's disease. She was apparently well able to do ordinary work until five years ago, when her legs began to feel numb and heavy, and with this were some pain and some slight loss of power. These symptoms increased, and in three months were followed by a total loss of power in the lower extremities. She was admitted to this hospital some four years ago. From the time of entrance until about one year ago, she was unable to move the legs. She went around the wards in a wheeled chair. The diagnosis was made of spondylitis, curvature, and paralysis and sensory disorders depending on compression myelitis, and it was supposed for some time that she was beyond the influence of remedies. One day one of the resident physicians gave her a simple digestant or carminative, soon after which she got up and walked, and has been walking ever since. She attributes her cure entirely to this medicine.

What is the lesson to be learned from this case? It is, in the first place, not to consider a patient doomed until you have made a careful examination. There can be much incurvation of the spine without sufficient compression to cause complete paralysis. In this patient we have an organic associated with a hysterical condition. This woman had disease of the vertebræ, the active symptoms of which had subsided. The vertebral column had assumed a certain shape, and the cord had adjusted itself to this new position, yet for a long time she was considered incurable from the fact that the conjunction of a real and a hysterical or mimetic disorder was overlooked.

Case 8.—Two years ago I was consulted by letter about an unmarried woman, aged 27, the youngest of eight or nine healthy children, whose parents were living at an advanced age. The patient had whooping-cough, which lasted six weeks, and was followed by severe pain in the back. For this she consulted various physicians, being treated for Pott's disease and spinal irritation. She, however, continued to grow worse, and every jar and twist gave severe pain. At this time she had lost much flesh, had pain in the back and elsewhere, and was subject to numerous and violent "spasms." She was now treated by a local practitioner, and improved to a certain extent. When first seen by the physician who consulted me, she was complaining of pains in her legs, hips, and left shoulder, which she considered rheumatic, and with pain in the abdomen.

Examination of the back with the patient on her side showed a slight prominence over the position of the first or second lumbar vertebra. This spot was painful on pressure, and had been so ever since the attack of whooping-cough three years before. She stated that every movement of the spinal column caused pain. At times the pain has been so severe that she could scarcely tolerate anyone walking across the floor of the room. A tap on the sole of either foot made her complain of severe pain in the back. The same result followed pressure on the head. The patient was unable to stand or walk, but occasionally sat up for a short time, although suffering all the time. *There was no muscular rigidity.*

The limbs and body were quite thin, but so far as could be detected she had no loss of motor or sensory power. At times when the rheumatic pains were worse the arms would be flexed involuntarily, and she stated that once the spine was drawn back and a little sideways. The pain in the hips was augmented by pressure. The appetite was rather poor. The doctor, supposing that she was suffering with spondylitis, advised the application of a plaster bandage, to which, after much entreaty

[1] Quoted by Althaus. On Sclerosis of the Spinal Cord, by Julius Althaus, M.D., M.R.C.P., etc. G. P. Putnam's Sons, New York, 1885, p. 330.

on the part of the parents and friends, the patient consented. During the application, however, she had a sort of fit and fainted, and the application was suspended. She soon recovered consciousness, but refused to allow the completion of the dressing. I gave the diagnosis that the affection was largely hysterical, and a few months later received word that the patient was on her feet and well.

The association of hysteria with real and very severe spinal traumatism partially misled me in the following case:

Case 9.—A middle-aged man had been injured in a runaway accident. He sustained a fracture of one of the upper dorsal vertebræ, probably of the spines or posterior arch. This was followed by paralysis, atrophy of the muscles, contractures, changed reactions, bladder symptoms, and bedsores. There was also anæsthesia, and the upper extremities were affected. Marked mental changes were present, the man being almost insanely hysterical.

The diagnosis was fracture followed by compression myelitis, with descending motor and ascending sensory degeneration. An unfavorable prognosis was given. He left the hospital and went to another, and finally went home. There, I have been told, he was treated with a faradic battery by a woman. He gradually improved and is now on his feet, although not well. In this case there was organic disease, and also much hysteria.

Mistakes in diagnosis where hysteria is in question are frequently due to the association with it of serious organic disease of the nervous system. This is a fact which has not been overlooked by authors and teachers, but one on which sufficient stress has not yet been laid, and one which is not always kept in mind by the practitioner.

Bramwell[1] says: "Cases are every now and again met with in which serious organic disease (myelitis, and poliomyelitis, anterior, acute, for example) is said to be hysterical. Mistakes of this description are often due to the fact that serious organic disease is frequently associated with the general symptoms and signs of hysteria; it is, in fact, essential to remember that all cases of paraplegia occurring in hysterical patients are not necessarily functional—*i. e.*, hysterical; the presence of hysteria, or a history of hysterical fits, is only corroborative evidence, and the (positive) diagnosis of hysterical paraplegia should never be given unless the observer has, after the most careful examination, failed to detect the signs and symptoms of organic disease."

ORIGINAL ARTICLES.

THE EXTERNAL THERAPEUTICS OF PULMONARY CONSUMPTION.

BY THOMAS J. MAYS, M.D.,
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THIRD PAPER.[2]

EXTERNAL applications in the treatment of acute inflammatory diseases of the respiratory organs are so common that it almost seems paradoxical to find them so rarely employed in the more chronic affections of these structures. Their absence is especially and notably conspicuous in the prevailing treatment of pulmonary consumption. Why this is so, is hardly comprehensible, unless it is due to the fact that the dominant sentiment of the profession indorses the doctrines of Laennec, of Charcot, and of other prominent men of the present day (notwithstanding the teachings of Virchow, Niemeyer, and Hamilton to the contrary), that consolidation, crepitation, bronchial respiration, etc., in the apex necessarily means an infiltration of that part of the lung with tubercle. This being the presumed condition, and the rebelliousness and obstinacy of tubercle to treatment taken into consideration, it naturally follows that the course of therapeutics assumes a *laissez faire* character, and the patient is generally advised to emigrate to some more congenial climate, and there his vital resources, unaided by artificial means, are left to struggle against a most desperate enemy, and in the majority of instances he is bound to go down in the unequal encounter.

In this paper I hope to adduce evidence to show that pulmonary consumption, in by far the largest number of cases, is of an inflammatory character; that tubercle is always a secondary product of inflammation; that in most cases a long period elapses between the advent of inflammation in the lungs, and the appearance of tubercle; and that this pretubercular stage can be successfully treated by the proper therapeutic measures.

In order to accomplish this properly we must trace the origin and evolution of the pathological history of a case of pulmonary consumption, and this of course necessitates a brief review of the anatomy and physiology of the lungs, especially that of their vesicular structure. The lungs are essentially composed of bronchial tubes, alveoli, bloodvessels, nerves, and lymphatics. The bronchi are lined with ciliated columnar epithelium, underneath which come in their order the basement membrane, inner fibrous coat, muscular layer, and the outer fibrous coat. The vesicles are merely terminal expansions of the bronchioles, the walls of which are composed principally (1) of elastic and white fibrous tissue, (2) an abundant plexus of capillary bloodvessels, (3) a system of plasmatic spaces, which communicate with the lymphatic vessels of the interlobular septa of the arteries, of the bronchi, and of the deep layer of the pleura, (4) a lining of the alveolar surface consisting of a single layer of flat epithelial cells, and which are by some histologists believed to be endothelial in character, and (5) small valve-like orifices or stomata located between these epithelial cells, and which are in close communication with the plasmatic or lymphatic spaces beneath. These stomata in connection with the lymphatic vessels play such an important rôle in the history of consumption, that their consideration cannot be overlooked. For even in the healthy state it is through them that carbon particles are absorbed from the alveoli and are disseminated throughout the lung by means of the lymphatics.

Now, pulmonary consumption generally begins in

[1] Diseases of the Spinal Cord, by Byrom Bramwell, M.D., F.R.C.P. (Edin.), 1884, p. 301.

[2] My first paper on this subject appeared in the Philadelphia MEDICAL NEWS, March 8, 1884, and the second one in *The Therapeutic Gazette* for June, 1885.

the epithelial covering of the alveoli. On account of some irritation they undergo a too rapid proliferation and give rise to an abundant catarrhal excretion, which generally accumulates and fills up the alveoli. The plugging of the alveoli in this manner gives rise to a studded appearance of the part, with nodules of a yellow-grayish color, and which are erroneously called tubercles. They are not tubercles in the technical sense of that term, but merely aggregates of inflammatory products. So far there is nothing histologically involved in the disease process except the epithelial lining and the walls of the alveoli, but the next step originates a different set of phenomena. For the continued proliferation and accumulation of epithelial products in the air-cells must exert a pressure on the capillaries in the walls of the alveoli and in the interlobular septa, and thus seriously interfere with the blood supply and nutrition of the latter. These infiltrated spots are therefore cut off from their source of nourishment, and begin to undergo a retrograde change of caseation—the centre of the spot being furthest from the nutritive supply begins to soften first, and in due time the whole mass breaks down and is expectorated. This is the stage of excavation, and it is here in the pneumonic process that the true tubercle is born.

Either in virtue of a specific poison, or of an accumulation of decaying products, a new element originates here which is absorbed by the lymphatics surrounding the bloodvessels and bronchi, and which incites new nodulated growths in these structures. These are genuine tubercles and differ from those aggregates called yellow tubercles, both in genesis and in structure. They are evolved from interstitial connective or lymphatic tissue, and are growths or a hyperplasia, and not mere accretions like the so-called yellow tubercles. These nodular structures primarily develop in the above named tissue in the alveolar wall and force the surface out into the cavity. By and by the continuity of the wall breaks and the newly formed interstitial connective-tissue cells exude into the alveolar cavity. A number of nodules following such a course will very soon crowd and overdistend the air vesicles, and very naturally these infiltrated areas will be cut off from their blood supply in the same way as those of the catarrhal infiltration are isolated. This is the stage in which the tubercular growth is so liable to be mistaken for the catarrhal infiltration, and *vice versa*. Here the two forms occupy the alveolar cavity, but when minutely examined it is found that one is composed of interstitial connective-tissue growth, and the other chiefly of catarrhal products. From this period the course of the tubercular mass is indistinguishable from that of the catarrhal mass, it softens and is expectorated.

It will thus be seen how important it is to recognize the difference between that stage of pulmonary consumption when it is purely inflammatory, and when it is complicated by the new element of tubercle. Any one who has had even a limited experience with the disease knows full well that in most cases the pretubercular stage is slow in its progress, and that a comparatively long time elapses between the advent of the disease and a break in the continuity of the lung structure. During this stage the patient may be subject to many of the aggravated signs and trying symptoms of the disease; such as dulness, crepitation, subcrepitation, bronchial respiration, constant cough and profuse yellow expectoration, hæmoptysis and blood-streaked sputum, chills and night sweats, loss in weight, want of appetite, etc. Yet it is the most advantageous period for the treatment of the disease—a period in which the patient can be fully restored, but which is often frittered away by doing nothing because of a mistaken notion of the pathology of the disease. After cavitation occurs and tubercle supervenes, the disease undoubtedly assumes a graver aspect, but even then the patient is by no means beyond the reach of medical aid, as some of the cases reported in the first series illustrate.

In order to present the line of difference between the catarrhal and the tubercular element of pulmonary consumption as visibly as possible, I will give a brief comparative outline of their chief characteristics in the following table:

Catarrhal Phthisis.	*Tubercular Phthisis.*
Commences on the surface of the alveolar cavity and in the epithelial layer.	Commences within the alveolar wall and in the interstitial connective or lymphatic tissue.
Is inflammatory in character, and its products consist chiefly of catarrhal epithelial cells.	Is hyperplastic in character, and its products are an increase of interstitial connective tissue elements. First evidence is a small projection on alveolar wall.
Isolated, or groups of alveoli are filled with catarrhal or epithelial products. These accretions are falsely called yellow tubercles.	Isolated, or groups of alveoli are filled up with connective tissue cells which break through the wall. These are true gray tubercles.
Continued accumulation causes isolation of these masses from their blood-supply, and consequently they undergo caseation which is liable to be followed by excavation. It is at this period that catarrhal phthisis generates tubercular phthisis.	Same.

After these introductory remarks on the general pathology of pulmonary consumption it is pertinent to inquire what indications in the line of treatment these considerations point out; or, in other words, what important clew does pathology offer in regard to the treatment of this disease? This is a very essential question, and one that has a most vital bearing on the whole province of rational therapeutics. The earliest stage of the disease which usually comes under the practitioner's care is that of slight consolidation of one apex, associated with a prolonged expiratory sound, and bronchial respiration with or without crepitation. This of course indicates a complete or partial infiltration of the alveoli with catarrhal products in that region. It is plain that the indication here is to get rid of these products, and the best method wherewith to accomplish this confronts us here. It is not enough that we only aim to circumvent the local process of inflammation, for it is evident that our attention must also be directed towards the products left behind by the latter process.

Now when we reflect that all portions of the lung are liable to catarrhal infiltration, and that absorption or resolution occurs more readily anywhere else than

in the apex, the inference at once strikes us that some close relationship must exist between infiltration and the apex. I do not think that there is any specific affinity between the two; but these products merely remain because there is less circulatory, lymphatic, and respiratory activity in the apex than in any other part of the lung, and hence, less facility for carrying them off. This assumption is further confirmed when coupled with the fact that in mitral disease where there is a constant hyperæmia or fulness of blood in the pulmonary circulation in consequence, catarrhal infiltration, or tuberculization for that matter, is almost entirely unknown. The continual hyperæmia does not allow an opportunity for the accumulation of these products, since they are constantly washed away by the serous transudation present in these cases. It is evident, therefore, that any agent which transfuses a greater degree of activity into the circulatory, lymphatic, and respiratory functions of the lungs will clear up the infiltrated alveoli and bring about a restoration of the apex. Now, in my experience, the external application of moist heat over the apex is certainly one of the agents which possesses the power of promoting resolution and resorption, as I have already shown in my two previous communications on this subject. By stimulating the affected spot and its surroundings with heat, the blood and lymph flow undoubtedly become accelerated, and an increased interchange and absorption of the fluids and solids of the part follow. It is a common remark of the consumptive patient, after being poulticed for a few days or a week, that he feels more free in his lung, and is able to take a deeper breath without pain than formerly.

To make a good poultice, boil the ground flaxseed meal in a sufficient quantity of water to make a thick paste. Spread it quickly in a layer an inch thick between two pieces of flannel cut in the shape of a jacket, which is well fitted to the top, front, and back of apex, as well as to the anterior and posterior aspect of the affected lung. The edges are sewed or tied together, then it is adjusted to the chest, and the outside well covered with oiled silk, or some thick woollen material in order to prevent a too rapid radiation of heat. It must be changed every two or three hours, or sooner if it becomes cooler than the body. This process is to be continued from morning until night, when the poultice is taken off, and the chest is well wrapped with woollen flannel for the night, in order to avoid a sudden disturbance of the bodily temperature during the sleeping hours. The next morning the same programme is begun and continued in the same way for at least three weeks, and so much longer as is necessary. It is much more expedient to poultice during the day only, and allow the patient to rest and be free from the poultice during the night. In fact this is very important, for if you insist to poultice during the night also, you are very apt to worry and discourage the patient, and get him to refuse the application altogether. In a course of five or eight days poulticing, or perhaps sooner, the patient begins to experience relief. The cough becomes easier, and the expectoration more loose. The appetite begins to improve, and the patient coughs less at night and sleeps better. The changes in the physical signs are also at times most marked. Where before the poulticing there was heard nothing but bronchial respiration, subcrepitation and perhaps crepitation, and coarse mucous râles show themselves, leading one to suspect that the disease is advancing instead of receding. In course of time, however, say three weeks, or sooner probably, as will be seen from Case III., the whole part will clear up and become dry.

I will now present the history of a third series of cases of pulmonary consumption, which has been treated by this method, and I think the practical results speak as emphatically in its favor as those of the first and second series of cases.

CASE I. *May 19, 1885.*—W., aged 26, has been sick with severe cough, dyspnœa, pain in the left chest, chills, fever, and night sweats for about two weeks. For the last year and a half the patient has been suffering from chronic bronchitis, and a "fresh cold" brought on the present attack—the disease undoubtedly extending from the bronchi into the alveoli.

Physical examination shows absolute dulness from third intercostal space in front to base of left lung, and from apex of scapula to base behind on same side. Increase of vocal fremitus, bronchial respiration, crepitation and mucous râles distributed over same region. Evening temperature 103.5° Fahr. and pulse 120.

Treatment.—Flaxseed poultice externally, and tincture of iron and quinine internally, together with a nutritious diet.

26th.—Feels very much better. His appetite, which was almost *nil*, greatly improved. Also cough less and easier. Less dulness, absence of crepitation, but mucous râles in abundance. Same treatment.

June 3.—Patient still improving, able to sit up and appetite very good. Temperature normal. Left lung very nearly cleared up as far as râles are concerned. Some dulness still persists. Same treatment.

12th.—Still improving. Râles entirely gone. Some impairment of percussion resonance still remains. Discontinue the poultice.

25th.—Patient very well. Able to walk out for a week past. July 14th, well.

CASE II.—N., aged 35, married, laborer, was seen first April 9, 1885. He complained of cough and pain in right chest for the last year. Has been unable to work lately. Is losing flesh, has yellow expectoration, night sweats, and no appetite.

Physical examination showed dulness in right apex, vocal resonance and fremitus increased over same region. Bronchial respiration over posterior aspect of same apex, and crepitation over anterior aspect. Left lung normal. He was treated variously until May 6th following, when another examination showed no improvement in his physical signs, and his symptoms were decidedly worse. On this day he was ordered to be poulticed over the whole of right lung. On the following 13th of May, his wife reported that he had improved in every respect since he began to poultice—coughs and expectorates less, and is now able to lie on his right side without causing any inconvenience. On the 18th of May, a physical ex-

amination showed that the crepitation in apex had almost entirely disappeared. There was also an improvement in the bronchial respiration, and possibly also in the dulness. His cough and expectoration markedly diminished and his appetite very good. He thinks he will be able to go to work very soon. Same treatment.

June 2.—Feels good; crepitation gone and bronchial respiration hardly perceptible; some dulness persists; poultice discontinued.

20th.—Bronchial respiration replaced by a roughened vesicular respiration; very little dulness.

CASE III.—D., aged 35, widow, cook, was first seen May 18, 1885. Had a cough which began two months previously; yellow expectoration; hæmoptysis last March; night sweats; losing flesh; poor appetite; cough very bad at night; bowels and menses regular. She is the only remaining member of a family of eleven children, all the rest having died from consumption or other chest troubles.

Physical Signs.—Dulness in left apex extending to second intercostal space in front, and to spine of scapula behind. Vocal fremitus and resonance increased over same area; crepitation in supraclavicular region; vesiculo-bronchial respiration from clavicle to second rib; defective respiration in posterior apex of same side; puerile respiration in upper portion of right lung.

Treatment.—Flaxseed poultice over left lung, and simple bitters with syrup of squills and senegæ internally.

June 4.—Feels very much better since she began the poultice; cough and expectoration much less and appetite very much improved.

9th.—Gets along well; coughs none at night and expectorates less; night sweats diminished and appetite good. *Physical signs.*—Crepitation in left apex entirely gone, and the dulness as well as vocal resonance and fremitus diminished; discontinued the poultice, otherwise same treatment.

18th.—Continues to improve; physical signs hardly show a trace of disease in left apex; she feels very well, and is able to follow her vocation again.

CASE IV. *June 2, 1885.*—B., aged 24, married; had a steady cough for some time, which is worse at night; yellow expectoration; night sweats; chills and fever; is losing flesh; has no appetite; bowels and menses regular, and heart normal. Physical examination shows dulness in left apex, extending to second intercostal space in front and to spine of scapula behind; prolonged expiration behind, and wavy respiration in front over same area; vocal fremitus and resonance increased here, too; right lung normal.

Treatment.—Internally, tincture of iron and quinia; and externally, flaxseed poultices.

16th.—Coughs less; expectorates the same; night-sweats less, and appetite better; less dulness in apex; vocal resonance and fremitus also less disturbed; wavy respiration disappeared in front. Same treatment continued.

23d.—Cough and expectoration less; appetite good; only occasional chills and night sweats; dulness hardly perceptible in front; poultice discontinued. Same internal treatment.

CASE V.—A., aged 51, stonecutter; was seen first on May 6, 1885, when he complained of constant pain in right side from shoulder to base of thorax, which lodged there a month previously. Pain is of a stitchy character—worse on taking breath; coughs since the attack; has a yellow expectoration, which, at times, is blood-streaked; is losing flesh; appetite poor; no night sweats, but feels very chilly.

Physical Signs.—Dulness on right apex, extending to second intercostal space in front, and to spine of scapula behind; vocal resonance and fremitus increased over this region; also crepitation, which is most marked in supraclavicular region.

Treatment.—Quinia, tincture of iron, and flaxsed poultices to right chest.

June 2d.—Pain and stitch better; coughs less, and has very little expectoration; no blood-streaked sputum since poultices went on; appetite better; but still feels chilly at times.

Physical Signs.—The differences in the vocal resonance and fremitus between the two sides probably less marked; crepitation is gone behind, and replaced by a prolonged expiration and roughened inspiration. Same treatment continued.

9th.—Says he feels much improved since he began the poultices; pain entirely gone out of chest, even on the deepest inspiration; no cough, nor much expectoration; appetite good; no chills any longer.

Physical Signs.—Crepitation vanished, and there is very little difference in the physical signs between the two sides of the chest; stopped the poultice, but continued the quinia and iron.

July 16.—Well, and is going to work.

CASE VI.—M., aged 30; was first seen on June 18, 1885; complained of pain in the right side of her chest; constant cough, day and night; dark greenish expectoration; had hæmoptysis a year ago; night sweats; chills; poor appetite; constipated bowels, and losing flesh.

Physical Signs.—Right side—defective respiratory motion; dulness extending from apex to second intercostal space in front, and to spine of scapula behind; vocal resonance and fremitus increased over this spot, as well as a prolonged expiratory sound, which is especially audible behind over the affected area; left lung and heart normal.

Treatment.—Tincture of iron and quinia, and flaxseed meal poultices externally.

2d.—Feels better; pain nearly gone in chest; coughs very little, only three or four times a day, and not at all during the night, so she states; very little expectoration, but still greenish in color; no more night sweats; occasional chills; appetite good, and bowels more regular; dulness less marked, and vocal resonance and fremitus certainly diminished; prolonged expiration gone behind; stopped the poultices; continued the other treatment.

The deductions which may be drawn in regard to the practical results of the external method of treating pulmonary consumption are, I think, obvious enough, and require no further comment at present. I will reserve for a further paper a review of all the cases so treated which I reported in the three articles on the subject, and there hope to show that the evidence from these examples undoubtedly and decidedly

points out the direction in which the successful treatment of this disease lies, viz., in efforts to combat and exterminate the disease by external applications, and to conserve and enhance the resisting power of the body by nutritious food and internal medication.

151 NORTH FIFTEENTH STREET, PHILADELPHIA.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XIV.

THE METALLIC SULPHATES.

BY GEORGE M. STERNBERG, M.D.,
SURGEON U. S. ARMY.

THE metallic sulphates have been largely recommended as "disinfectants," and directions for their use are to be found in the printed circulars of health authorities in this country and in Europe. In France the sulphate of copper is a favorite disinfectant, and, as I shall shortly show, is a reliable agent for the destruction of germs in the absence of spores. It is very much superior to ferric sulphate, or zinc sulphate, which have been more extensively used in our own country.

The value of all these agents as antiseptics is beyond question, and when the object in view is to prevent the development of germs in privy-vaults, cesspools, etc., a solution of "copperas," on account of its cheapness and efficiency, is especially to be recommended. But the directions often given for the use of dilute solutions of ferric sulphate, or zinc sulphate, for the disinfection of the sputa of patients with diphtheria, the excreta of patients with cholera, typhoid fever, etc., are founded upon a mistaken estimate of the germicide power of these salts.

The metallic sulphates have all a certain value for the prevention of putrefactive fermentation, and for neutralization of the volatile products of putrefaction. They are therefore "disinfectants" in the popular acceptation of the term. Thus Vallin says:

"*Metallic sulphates in general.*—These agents are disinfectants in the vulgar sense of the word; they diminish, or cause to disappear, bad odors; their action being limited to the neutralization of ammonia and the decomposition of sulphuretted hydrogen, or of the sulphhydrate of ammonia.

"In this group are the soluble salts of iron, of zinc, of copper, of manganese, and of lead. The oxides of these metals, which are quite cheap, have also been recommended for this purpose; but the salts have the advantage over the oxides of being able to saturate ammonia already formed, or that which results from the decomposition of the sulphhydrate of ammonia; the oxide of iron, for example, can only fix sulphuretted hydrogen by forming the sulphuret of iron; the sulphate of iron produces in addition the sulphate of ammonia.

These salts, then, cannot neutralize all bad odors, and therefore they do not entirely merit the title of deodorants. Bad odors, indeed, owe their infection to a great quantity of diverse substances which have not been completely determined by chemistry, and of which scatol is one of the most recently discovered. It is, then, almost entirely the two badly smelling compounds which have been longest known, which are neutralized by these metallic salts."[1]

"Virchow has pointed out one of the objections to the use of the sulphate of iron for disinfecting feces. The volatile fat acids, butyric, valerianic, etc., which have a disgusting odor and are highly toxic, are ordinarily combined with ammonia. When we throw sulphate of iron upon fecal matter, the sulphuric acid combines with the ammonia and fetid products are given off, which are very volatile.

"The immediate effect, therefore, of throwing sulphate of iron into latrines, is frequently to augment the bad odor, which, however, soon diminishes, but ordinarily reappears after some time." (Op. cit., p. 63.)

In what follows we shall endeavor to fix the value of the metallic sulphates as *disinfectants* in accordance with the definition of the term heretofore given by the Committee on Disinfectants, *i. e.*, the germicide value as fixed by biological tests.

Ferric Sulphate.

In the writer's experiments published in the *American Journal of the Medical Sciences* (April, 1883), it was found that a saturated solution of ferric sulphate failed to destroy the growing power of any of the test organisms, the time of exposure being two hours. A recent experiment upon a micrococcus obtained from the pus of an acute abscess gave a similar result. The organism grew freely in culture solutions, after exposure for two hours to a ten per cent. solution.

According to Arloing, Cornevin, and Thomas, exposure to a twenty per cent. solution for forty-eight hours does not destroy the virus of symptomatic anthrax. The vitality of anthrax spores is not destroyed by exposure for six days in a five per cent. solution (Koch).[2]

Zinc Sulphate.

In the writer's experiments, reported in the *American Journal of the Medical Sciences* (l. c.), a solution of twenty per cent. of this salt failed to destroy the micrococcus of pus. In experiments recently made, the same micrococcus grew after exposure to a ten per cent. solution for the same time (two hours), but development was somewhat retarded. Another micrococcus (*M. tetragenus*) was destroyed by a ten per cent. solution in the same time. Broken-down beef-tea, mixed in equal quantities with a forty per cent. solution, was not sterilized at the end of two hours, as shown by culture experiments made in the usual way.

Koch found (l. c.) that a five per cent. solution had not destroyed the growing power of anthrax spores at the end of ten days, although their development was somewhat retarded.

Cupric Sulphate.

I have recently made experiments with this salt upon pure cultures of *B. anthracis* and of *B. subtilis*, and find that in a twenty per cent. solution (equal parts of a forty per cent. solution and of the culture)

[1] Traité des Désinfectants, p. 57.

[2] See table on p. 264 of the first volume of the Mittheilungen aus dem Kaiserlichen Gesundheitsamte.

it fails to destroy the vitality of the spores of these bacilli in two hours' time.

Arloing, Cornevin, and Thomas found that the dried virus of symptomatic anthrax is destroyed in forty-eight hours by a solution of this strength (twenty per cent.). Koch found (l. c.) that a five per cent. solution did not destroy the vitality of anthrax spores at the end of ten days, although the rapidity of development was somewhat retarded.

The germicide power of this salt, is, however, decidedly superior to that of the corresponding salt of iron or of zinc. I have demonstrated by recent experiments that it destroys micrococci in the proportion of 0.5 per cent. (= 1 : 200). The experiments were made upon a micrococcus derived from the pus of an acute abscess, and upon the micrococcus of swine plague. In one-half the amount named (1 : 400) it failed to destroy the vitality of these micrococci.

This agent, then, is a valuable germicide, and may be safely recommended for the disinfection of material not containing spores. But none of the metallic sulphates can be relied upon for the destruction of spore-bearing pathogenic organisms, and the germicidal power of ferric and zinc sulphate is too feeble to make these salts available for disinfecting purposes, even in the absence of spores.

ON THE RELATION BETWEEN THE EARLIEST STAGES OF GRAY DEGENERATION OF THE OPTIC NERVE, AND INCREASE OR DIMINUTION OF THE PATELLAR-TENDON REFLEX (KNEE-JERK).[1]

BY WILLIAM F. NORRIS, M.D.,
CLINICAL PROFESSOR OF OPHTHALMOLOGY, UNIVERSITY OF PENNSYLVANIA.

ALTHOUGH it has long been known that gray degeneration of the optic nerves is at times a forerunner and a herald of similar lesions in the spinal cord, yet the intervals between the recognized times of appearance of the eye symptoms and the spinal symptoms vary so greatly in each case that the frequency of such concurrence has been variously stated by different authors.

It is to the earliest stages of this gray degeneration of the optic nerve to which attention in this paper is directed, where the nerve is simply sickly, and has not yet become atrophic; where there is almost full acuity of central vision, with slight contraction of the fields for form and color, and where the irides are still prompt in their reactions to light and convergence; where, in the beginning, the disk at first sight appears of a general dirty red-gray tint, but, upon a careful focussing, it is found to be superficially capillary, while its deeper layers, especially in the neighborhood of the *lamina cribrosa*, are decidedly gray, and wanting in blood circulation, accompanied by sufficient haze of the retinal fibres to veil the scleral ring. This condition is followed later by a pallid, "filled in," and woolly appearance of the nerve, surrounded upon all sides by a broad, and oftimes sharply cut scleral ring. Such eye symptoms are associations, and not sequences of the spinal disease, and, although they do not give any absolute answer as to the cause, just as any optic neuritis *per se* fails to indicate a definite lesion, yet in this grouping we have a sign of nerve disturbance, which is a true danger signal, and should cause us to look carefully for tabes dorsalis, or other form of degeneration of the central nervous system. The writer does not wish to inculcate that this process of gray degeneration of the optic nerves may not at times be local, and limited exclusively to them, but that in a majority of cases it is a forerunner or an associate of grave changes in other parts of the organism. The ophthalmoscopic appearances, which are the most valuable, should not be confounded with those of the slight retinitis which is so often seen in uncorrected ametropia, or with the more intense form which results from intracranial and orbital trouble, whilst care should be taken to differentiate them from those visible optic nerve changes which often result from faulty nutrition or anæmia, as well as from uterine disease.

Notes of forty-seven cases in the early stage of this degeneration were presented. They showed various degrees of contraction of the fields of vision with often an increase, and more rarely a diminution, in the knee-jerk; the increased patellar-tendon reflex usually corresponding with the larger field, and diminution or abolition of the reflex usually accompanying the smaller field. It was also found that the irides were affected later in the disease, and that the more defective reaction of the iris was in direct ratio with the more degenerate optic nerve. It is very probable that the increased knee-jerk in this early stage is due to irritation of the gray matter of the cord.

Three other cases of gray degeneration of the optic nerves were also detailed, which the writer had been able to follow for several years. In two, gray degenerations of the optic nerves had been succeeded by incomplete atrophy of the optic nerve with gradual diminution of the knee-jerk, lightning pains, ataxic gait, and other well-recognized symptoms of tabes dorsalis. In the third, there were "Argyll-Robertson pupils," failure of accommodation, which, at times, varied in intensity, shooting pains, and ataxic gait.

[1] Abstract of a paper read before the American Ophthalmological Society, July 16, 1885.

SPLINT FOR THE IMMEDIATE DRESSING OF CLUB-FOOT AFTER TENOTOMY, ALSO FRACTURES ABOUT THE ANKLE-JOINT AND LOWER THIRD OF THE LEG.[1]

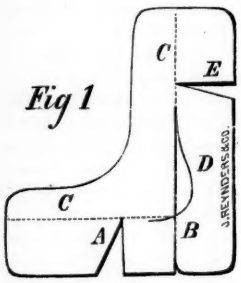
BY EDWARD DEVELIN, M.D.,
OF NEW YORK.

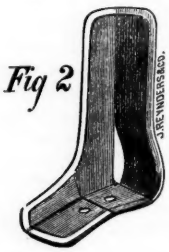
FOR some time past the desirability has occurred to me of having a simply constructed splint, which can be used for the dressing of club-foot immediately after tenotomy. It has seemed to me that one made of tin, carefully padded, which is both firm and light,

[1] Read before the New York Orthopædic Society.

as well as simple in its construction, would fulfil the purpose.

I have, therefore, devised a splint which I here present (Fig. 2), and also show the facility with





which it can be made by any one. It is, as you see, made out of one piece of stout tin (Fig. 1), and reinforced, if necessary, with another small piece underneath, in order to stiffen it.

The advantage of this splint over those made of rubber, felt, plaster of Paris, leather, or foot-board and adhesive straps as sometimes used, is its simplicity of construction, readiness of application by one person, immobility, and the ease with which the foot can be examined at any time without removing it from the splint. It can be made in ten minutes, and in such a manner as to secure eversion or inversion of the foot at the metatarso-junction, as I here show you—the former of course being sometimes necessary after division of the plantar fascia, or short flexors, in talipes varus. In simple equinus this eversion is of course not necessary. Again, in other cases, where the tibialis posticus is somewhat shortened, but not sufficient to warrant an operation, the heel assumes a tendency to turn upward and inward, causing the external malleolus apparently to project. In those cases I make a bend in the splint as you see just above the ankle; so that when the adhesive straps, which fasten the foot in position in the splint, are properly applied, they draw the external malleolus inward, pressing the heel downward, and bring the foot into its normal position.

In order also to draw the anterior part of the foot out and secure a strong eversion after the plantar fascia has been cut, a band of adhesive plaster is passed over the dorsum of the foot to the inner side, and then underneath outward, so that while the heel is held firmly in position, I can evert the anterior part of the foot to a very marked degree, and secure it in this position by passing the adhesive strap under the splint, and then, again, over the top of the foot, in which position it cannot possibly slip.

In applying the splint, after the operation, the foot is at once brought into the normal position, viz., at a right angle with the leg, and then placed carefully in this position in the splint, which is previously well padded. Then draw a band of adhesive plaster over the heel of the splint and across the instep, padding the instep; then take the adhesive plaster at the foot, and, in order to correct any inversion, make traction outward, and secure it as I have just mentioned. I next turn my attention to the leg and upper part of the splint, securing it in like manner with adhesive straps, and the fixation is almost complete. This is extremely simple, for the foot is exposed clearly to view; hence can be seen in almost a moment what will cause, or may be causing, the patient pain, and it can be as quickly relieved without disturbing the condition of the foot, in which it has been secured.

This dressing (Fig. 3) is now supplemented with

an ordinary roller bandage, keeping the parts warm, and giving more firmness and security to the application of the splint.

This is not theoretical, but practical, as I have tested; and, further than this, where the child is so small as to render it difficult to secure a small shoe which will retain its shape, I have allowed the splint to be worn as a shoe, being secured with only a roller bandage, and removed twice daily for the feet to be manipulated and massaged.

Although this splint was designed especially for the treatment of club-foot, it can be used to great advantage in fractures about the ankle-joint or lower third of the leg, either in simple or compound fractures; its cheapness and cleanliness rendering it especially adapted to hospital use.

Fig. 1 shows the piece of tin cut ready to be shaped; C C is the extent of surface placed on the inner side of the leg and foot; A shows V-shaped piece of tin removed to allow of it being bent at the metatarso-junction; E shows V-shaped piece also removed to allow of bending of the splint when the tibialis posticus is contracted as I mentioned. The black line B is simply a direct cut through the tin to allow of it being bent so as to accommodate and form the heel of the splint D. In the majority of cases the V-shaped piece E will not be required to be cut out. If it should require it, then reinforce the back and underpart of the splint after it is formed as in Fig. 2.

Fig. 2 shows the splint complete; the curved piece forming the heel being riveted underneath with two rivets, retains the splint in the desired form, the sharp edges of the tin being simply covered with a strip of ordinary rubber adhesive plaster.

Fig. 3 shows padding and dressing of the foot complete, previous to applying the roller bandage.

This splint can be secured of any size, by giving length of foot and leg, from Messrs. Reynders & Co., 303 Fourth Avenue.

MEDICAL PROGRESS.

IN WHAT CONDITIONS IS DIABETES COMPLICATED WITH GANGRENE?—DR. T. GIRON, in a letter recently addressed to Professor Verneuil, discusses the occurrence of gangrene as found in diabetics. He records the history of sixteen cases, concerning one of which he says: Thus, here is a diabetic in whom the gangrenous process was not developed from a local cause, neither a blow nor a blister, and which presents a series of gangrenous spots—under the influence of an affection of the heart. The influence of diabetes in the production of grangrene, in a patient suffering with heart disease so little advanced, is not doubtful; however, does not their manner and time of appearance, their progress and cure by the use of digitalis, indicate that the condition of the heart plays a most important part in the production of the gangrene, than does diabetes?—*La Progrès Médicale*, July 25, 1885.

INHALATIONS IN PULMONARY TUBERCULOSIS.—During recent times we have heard a great deal of the value of antiseptic inhalations in the treatment of phthisis. A further clinical investigation has been undertaken by DR. RENZI, of Naples. He has employed inhalations of four kinds: First, of iodoform and essence of turpentine, of which two to six drops every hour or two hours of a liquid containing one part of iodoform to twenty-five parts of spirit of turpentine were used; fourteen patients were submitted to this treatment. Secondly, iodine volatilized every day in a bed-room thirty cubic metres in capacity, in the amount of 0.40 to 2.10 grammes, heated in a capsule by means of a sand-bath; three observations were made. Thirdly, sulphuretted hydrogen, evolved by the action of sulphuric acid on powdered sulphide of iron in such proportion that every cubic metre of atmosphere in the chamber should contain seventy-five cubic centimetres; seven cases were thus treated. Lastly, sulphurous acid, made by burning sulphur in a closed chamber, so that there should be forty-three cubic centimetres of the gas in a cubic metre of the atmosphere. Dr. Renzi has found that the first two methods of treatment ameliorate the local condition and general nutrition, without modifying the pyrexia, diarrhœa, or nocturnal sweatings. Inhalations of sulphuretted hydrogen and sulphurous acid seemed to increase the general strength, improving the nutrition and increasing the quantity of urine discharged. Sulphuretted hydrogen had a special influence on the respirations, which were diminished in frequency; it also exercised a beneficial influence on the cough; but the fever, diarrhœa, and diaphoresis were not relieved. Of all the inhalations, the author decides in favor of turpentine and sulphuretted hydrogen.—*Lancet*, July 25, 1885.

TWO CASES OF LAPAROTOMY, IN ONE OF WHICH THE KIDNEY WAS REMOVED, AND IN THE OTHER A RENAL CYST.—At a meeting of the Société de Chirurgie de Paris, held July 22, 1885, M. LUCAS CHAMPIONNIÈRE reported the two following cases of laparotomy:

The first case was that of a young woman who presented a movable tumor in the right side, and which seemed to be in relation with the kidney. Laparotomy was performed, and a renal tumor discovered. In order to remove all possibility of error both kidneys were sought. The left was small and atrophied; the right was situated behind the liver. The tumor was then removed without hesitation, and was lightly attached by a slender pedicle to the convex border of the liver, and was found to be a cyst completely filled with hydatids.

The second case was also that of a woman, who suffered excruciating pains in the right side, which was the seat of a deep-seated tumor. Diagnosis was undecided between suppurative nephritis and perinephritis. The patient passed no pus with the urine; but exploratory puncture in the region of the tumor caused the escape of more than a quart of purulent fluid. M. Championnière then made an exploratory incision and thus reached the kidney. The kidney was found to be very much altered, and the wound was closed, further operation being impossible by the incision made.

A curious fact in connection with the case is, that the patient's urine after the exploratory incision contained, constantly, pus. June 13th, the kidney was removed through an incision made upon the border of the right muscles.

The kidney was first removed and afterward the ureter and fibrous envelope which surrounded the organ. The operation, though difficult, was entirely successful.—*Revue Médicale*, July 25, 1885.

SALICYLIC ACID SUET IN HYPERIDROSIS.—The Berlin correspondent of *The British Medical Journal* writes: All reports of the German army surgeons on experiments recently made with salicylic acid suet, agree in recommending its use as a remedy for extreme sweating of the feet. It is composed of 2 parts of pure salicylic acid to 100 parts of the best mutton suet. The War Minister has, therefore, permitted the introduction of this preparation into the army medical stores, for the benefit of soldiers suffering from sweating feet, or soreness from riding.—*British Med. Journal*, Aug. 1, 1885.

USE OF IODOFORM IN GONORRHŒA.—DR. A. OGER, in discussing the use of iodoform in gonorrhœa, refers to its use in solution of glycerine by M. Campana in acute and chronic conditions of the disease.

The best results are attained, however, when it is applied to the diseased parts in a very fine powder. In this form Timmermans has obtained excellent results. Iodoform being insoluble in water, he suspends, in two and one-half ounces of water, sixty grains of the drug rendered impalpable by previous solution in sulphuric ether. The mixture being well shaken, a small glass syringe is filled and injection practised. As it is important that the iodoform come in direct contact with the inflamed mucous membrane, the urethra should be thoroughly cleansed by urination immediately before the injection is made. The patient should lie on his back and the injection be made in a direction nearly vertical, gravity thus causing the powder to seek the lower part of the syringe, and thus favoring its introduction into the urethra when pressure is made upon the piston. When the syringe has been emptied, it should be gently withdrawn, and while the meatus is compressed by one hand, with the other careful pressure is made so that every part of the passage is reached

by the fluid, and the iodoform thus deposited upon the mucous membrane.

After four or five minutes the fluid is permitted to escape gradually, in order to avoid the ejection of the iodoform. The operation should be repeated at least three times a day.

Whatever is the stage of the disease a prompt result is certain, as is shown by diminution of pain—the iodoform evidently acting as an anæsthetic to the inflamed parts.

The character of the pus is also changed, and its abundance diminished. Cure is promptly obtained; in one resulting in five days.—*Journal de Médecine de Paris*, July 19, 1885.

EXCISION OF THE HIP.—DR. WILLIAM ALEXANDER, at the close of an interesting paper upon excision of the hip, thus summarizes his views of this operation:

1. That hip disease should in the earlier stages be treated by that absolute and perfect rest of the joint that we now appreciate so well and know so much better—thanks to Mr. H. O. Thomas—how to apply, without at the same time producing general debility of the system through the restraint and confinement necessary in former times to secure sufficient rest to the joint.

2. That this treatment, thoroughly and persistently carried out for a long period, will cure a very large percentage of cases of joint disease.

3. That unfortunately this treatment *cannot* or *is not* properly or persistently carried out amongst the poor, with whom a persistent attempt to carry it out after a certain stage of the disease has been reached only leads in many cases to a useless limb after many years, and probably in a majority to death, either during the process of cure or soon after, from the exhausting effects of the local disease, and not, as some erroneously think, from an inherited constitutional debility.

4. That many of these patients could be saved by excising the joint when a decided second stage of hip disease has been reached, and that excision is most safely and advantageously performed by severing the femur above the trochanters, clearing out the acetabulum, and maintaining the opposing bones so far apart that their surfaces can resume a healthy condition, and the aperture between become filled up with fibrous tissue. By this means an excellent false joint is formed, or, if the adhesions become too firm, a good stiff joint.

5. That the advent of the stage of the disease suitable for excision is indicated by the repeated formations of abscesses and sinuses round the joint. Then excision, as described, seems to me to offer better results, both locally and generally, than rest and waiting to see what will turn up.

6. That when the supra-trochanteric mode of excision cannot be performed with any chance of success, on account of the extensive nature of the hip disease, the alternative treatment comprises either continued expectancy or amputation, according to the age and condition of the patient.

7. That it is, however, a great mistake to imagine that all softened bone or infiltrated tissue should be cleared away by the operator. All he has got to do is to clear a space where the operations of nature, in dealing with diseased or disabled tissues, can be carried out as easily and expeditiously as possible. The operator should remove all manifes ly dead tissue, but bone and tissue that the surgeon would be inclined to sacrifice as doubtful should be left alone, as these will, under the same skilful hands of nature, be restored to health, or extruded harmlessly if only a passage for their extrusion be maintained.—*The Liverpool Medico-Chirurgical Journal*, July, 1885.

THE RELATIONS BETWEEN THE SYMPTOMS AND THE CORD LESIONS OF POSTERIOR SPINAL SCLEROSIS.—DR. E. C. SPITZKA, in a paper read before the American Neurological Association, June, 1885, in discussing the relations between the symptoms and the cord lesions of posterior spinal sclerosis, says: While it must be admitted that the primary lesion of tabes is competent for each affected level of the root zones and gray horns to produce all the characteristic symptoms of tabes, referrible to that level, yet in the extent and distribution of the consecutive lesions we have valuable gauges of the extent, severity, and duration of the primary disturbance; and we may attribute to the following special disturbances the ensuing degeneration of the tracts whose functions are abolished or diminished:

1. That of the column of Goll, to the disturbance of a muscular sense in the lower extremities.

2. That of the comma-shaped internal bands of the column of Burdach, to the corresponding disturbance in the upper extremities.

3. That of the triangular area bordering on the periphery of the cord and posterior root entry, to the severe analgesic development.

4. That of the column of Clark and direct cerebellar (Foville's) tract to the disturbed space sense.—*The Alienist and Neurologist*, July, 1885.

TREATMENT OF ECZEMA IN REGIONS COVERED WITH HAIR.—Taking the scalp as a region—for which the directions laid down may be generalized in the treatment of eczema of hairy parts—it is recommended that the head at first should be thoroughly washed two or three times with soap, in order to insure the cleanliness of the affected parts. After this has been done, daily applications of the following preparation should be made:

℞.—Acid. salicylici . . . . . gr. x.
Tr. benzoini . . . . . gtt. xx.
Vaselini . . . . . ℥j.—M.

If a topical application is desired, which will more readily dry the parts, the following is recommended:

℞.—Acidi salicylici . . . . . gr. xv.
Amyli
Zinci oxidi . . . . . āā ℥iv.
Vaselini . . . . . ℥j.

—*Journal de Médecine de Paris*, July 26, 1885.

CASE OF PROGRESSIVE PARALYSIS OF THE ULNAR NERVE, CONSEQUENT UPON INJURY; OPERATION; SUCCESSFUL RESULT.—MR. CHAUNCY PUZEY, Surgeon to the Liverpool Northern Hospital, reports an interesting case of progressive paralysis of the ulnar nerve consequent upon injury and which was successfully treated by operation. The patient, a boy, aged 15 years, was caught between a "travelling-band" and the wheel

over which it passed, with the result of a compound fracture of the bones of the forearm. Forcible extension was required to restore the fragments into their proper position. The case was treated antiseptically, and with the exception of a somewhat slow union of the fragments of the ulna, no trouble was experienced at this time.

But the interesting feature of the case appears later on. The lad had ceased to be an inmate of the hospital after a month's treatment, and was attending as an outpatient, on account of the non-union of the ulna, when it was noticed that there was a tendency to obstinate flexion of the fingers, more especially of the little and ring fingers. A hinged splint, by which elastic extension can be used for the purpose of straightening contracted fingers or hands, was therefore applied; and in a day or two the patient presented himself, with the ring and little fingers blistered and discolored by the pressure of the splint and bandage. This, of course, at once led to inquiries as to the state of the ulnar nerve; the rest of the hand appearing quite healthy. Then it was ascertained that the lad (who had always been most patient and uncomplaining) had experienced curious sensations, partly of pain, partly of numbness, ever since the accident; and now it was found that the affected fingers were deficient in sensibility. The natural conclusion was that the nerve had been pinched or bruised by the sharp edge of the bone at the time of the accident. There was reason to believe that the nerve had not been divided, and we hoped that the effects of the injury would pass off.

But they did not; and gradually the numbness increased, and the fingers wasted at the tips; the circulation was very sluggish, the fingers purple and cold, the skin moist and clammy. Then the interossei and the lumbricales wasted, and the adductor pollicis and the muscles of the little finger followed suit. Combined with the numbness, there was evidently a considerable amount of pain felt on any attempt being made to straighten the flexed fingers; and a dragging sensation was complained of at the seat of the fracture, just above which, pain was felt on pressure. The symptoms, therefore, pointed to gradually increasing compression, or constriction, with adhesions of the nerve at this point.

As before mentioned, the interosseous spaces, both on the dorsal and on the palmar aspects, were hollowed out; the muscles of the ball of the thumb, and those of the little finger, were much wasted. With regard to the cutaneous sensibility, there was complete anæsthesia of all the surface usually supplied by the ulnar nerve, and also incomplete anæsthesia of the adjacent sides of the middle and ring fingers (due, no doubt, to this being one of that minority of instances where the ulnar nerve supplies two and a half, instead of one and a half, fingers).

On April 28th, I proceeded to explore the site of the fracture of the ulna, which was now firmly united, but was marked by a slight thickening of the bone. An incision was made, as for exposing the ulnar artery, the centre of the incision being over this thickened portion. Neither artery nor nerve was to be seen, though carefully searched for; the bone was reached; the fracture was found satisfactorily united, the upper fragment projecting very slightly above the lower; there was some thickening from callus, and, moreover, what seemed to be a band of thickened periosteum, tightly stretched over the callus. The question arose, Was this the sought-for nerve? The wound was enlarged upwards and the nerve was then found unmistakably, and traced into this band; then the wound was extended downwards toward the wrist, and what appeared to be nerve was found, and proved to be continuous with the band; but, whereas the nerve above the adhesion was pink and fleshy looking, the part below was colorless and wasted. Partly by the knife, and partly by gentle elevation with a raspatory, the nerve was freed from the bone. We then had between two and three inches of ulnar nerve completely free, so that it could be lifted above the level of the wound, and thoroughly examined. The upper part was, as before mentioned, pink and fleshy looking, evidently swollen; the part which had been fixed down was thinned and flattened, ragged from small tags of fibrous tissue attached to it; and the lower end of the nerve was round, but pale, and apparently wasted. To prevent the lately adherent portion from dropping down into its old situation, and probably again becoming attached to the bone, I connected a few fibres of the flexor carpi ulnaris with the adjacent flexor profundus digitorum by one catgut suture, thus interposing a fleshy bed between nerve and bone. The wound was then closed and dressed in the usual Listerian method.

On May 1st (three days after), Mr. Horrocks, the senior house-surgeon, notes that "the patient was able to tell when the skin on the proximal phalanges of the little and ring fingers was pinched, and appeared to have perfect sensation along the adjacent sides of the middle and ring fingers."

On May 7th (ten days after the operation), he notes "sensibility of fingers increasing, and extending downwards toward the tips, which are, however, at present insensible, The patient made the remark that, for the last two or three days, he has had a sensation as of blood rushing along toward the finger-ends."

On May 20th, the wound was quite healed, and tactile sensibility was rapidly increasing, being more acute in the ring finger than in the little, in the proximal than in the second phalanges, almost absent in the last phalanges. The improvement since that date has been slow, but steady and persistent, until now (eight months after the operation), there is hardly any appreciable difference between the two hands. Tactile sensibility appears to be perfectly restored; the hand is now natural in shape, the interosseal spaces having become perfectly filled by their proper muscle; and the muscles of the thumb and little finger are restored to their normal state. The color of the skin and of the nails is natural. The lad has returned to his work in the mill.

It should have been mentioned that until quite recently he has had some pain in, and tendency to flexion of, the index finger, with disordered nervous sensations therein; and forcible extension of the finger has always, until recently, given rise to a dragging sensation at the site of the old fracture. Probably, a small portion of the median nerve, or rather of its anterior interosseous branch, sustained injury through the compound fracture of the radius, and some adhesions took place in that locality; and these, as he has began to use his arm, have become stretched or broken down.

I alluded to the fact of our not being able to find the

ulnar artery in the wound. The probability is that it was so crushed by the sharp bone, that it was either divided or so damaged that it became impervious immediately after the injury.

It may occur to some that an exploratory operation should have been performed earlier. Possessed of the wisdom which comes after the event, it certainly does appear that an earlier operation would have been, at all events, justifiable; and, with the knowledge gained in this instance, I should feel disposed, should I meet with a similar case, to operate before such a condition of paralysis was reached.—*The British Medical Journal*, May 16, 1885.

LEPROSY AS OBSERVED AT CONSTANTINOPLE.—M. CONSTANTINE PAUL, at a meeting of the Académie de Médecine de Paris held July 28, 1885, in the name of the commission composed of himself and M. Cornil, read a report upon a memoir of Dr. Zambaco upon leprosy as observed at Constantinople.

The paper of Dr. Zambaco was specially devoted to the study of tubercular leprosy, and the conclusions reached were as follows:

1. Leprosy is not a hereditary disease. It is acquired possibly by contagion, but neither the clinic nor experimentation upon animals or upon man has yet been able to demonstrate this fact. The negative results of clinical investigations, and the failure of inoculation experiments, show that the disease is not easily transmitted, and that there is no proportion between the possible chances of contagion and the severity of the precautions which, in the Orient, are taken against it.

2. At Constantinople, as in Norway, lepers are affected with eye disease in the proportion of two-thirds or three-fourths.

These affections attack the cornea, iris, and crystalline body—with this difference, that the tubercular form is more frequently announced by a keratitis, while the anæsthetic form produces changes in the cornea and conjunctiva as a result of orbicular paralysis, which prevents retention of the lachrymal secretion.

3. Therapeusis consists in the combination of general treatment by tonics, such as quinine, arsenic, ergot, and of local treatment by destruction of the tubercles by means of the thermo-cautery.—*L'Union Médicale*, July 30, 1885.

THE CHOLERA BACILLUS.—FINKLER and PRIOR, in a forthcoming pamphlet, present the following *résumé* of their views:

1. We confirm the existence of Koch's comma-bacillus in the contents of the intestines and in the dejections of patients who suffered from cholera Asiatica in Genoa in 1884.

2. We have discovered the comma-bacillus in the feces of cholera nostras patients; we have thus found them directly by means of the microscope, and we were the first to breed them in pure culture fluids as well as the first to describe them.

3. These two kinds of comma-bacilli are vibrios which form genuine spirillæ. In reference principally to their morphological rank, as well as in relation to the changes which they may undergo in form, the two vibrios are alike.

4. The conduct of both in cultures agrees in most kinds of culture procedures. Differences manifest themselves only under very closely related conditions of culture surfaces and temperature, and declare themselves not so much by *absolute* as by far more *relative* peculiarities, namely, greater energy of growth and of vitality of the vibrio of cholera nostras.

5. Of the physiological characteristics of these vibrios, we especially denote, and have already done this in an earlier paper, their marked capability of resistance against drying, against different temperatures, and against putrefaction.

6. We maintain the possibility of a condition of tenacity, and consider it probable that this tenacity of existence resembles that of one of the spores of some other microörganism of similar formation.

7. Both vibrios are pathogenic.

8. The pathogenity of Koch's vibrio is greater than that of the Finkler-Prior vibrio; this also is only a question of *relative* difference.

9. The pathogenic character does not manifest itself in all kinds of animals; far more, rather, a great number of animals possess immunity against both vibrios. They manifest themselves only under certain conditions. The animals which are susceptible to and the conditions which are favorable for the action of the bacilli are the same for both vibrios.

10. The evidences of the disease called forth by the vibrios in the bodies of animals possess a certain similarity to those of cholera in human beings; they are, however, not specific, but in the guinea-pig can be imitated by means of other infectious matters and by chemical poisons.

11. The causative connection between the comma-bacillus and cholera Asiatica is most probably shown by the constant presence of the bacillus, but is not to be considered as certainly proved by experiments on animals. The causal connection between the comma-bacillus (discovered by us) and cholera nostras is probably shown on the one hand by the constant discovery of the microörganism, on the other, by the extreme similarity of the symptoms of cholera nostras to those of cholera Asiatica, as well as in the biological and pathogenic peculiarities of the two comma-bacilli.

12. The two vibrios can reach the blood after being injected into the intestines, and are secreted in the urine. The sojourn of the Koch bacillus in the body of an animal creates an increase in the rapidity of its growth, so that thereby a still greater similarity between the two vibrios is attained in their demeanor in culture. —*Boston Med. and Surgical Journal*, August 13, 1885.

CONGENITAL LATERAL DEVIATIONS OF THE UTERUS AND THEIR RELATIONS WITH PERIUTERINE TUMORS, AND THE MECHANISM OF LABOR.—PROFESSOR LAZAREWITCH, in a contribution to the *Annales de Gynécologie* for July, 1885, wherein he discusses congenital lateral deviations of the uterus, and their relations with periuterine tumors and the mechanism of labor, sets forth the following propositions:

1. *Congenital retro-position* of the uterus depends upon the shortening of the sacro-uterine ligaments. In this position of the uterus readily originate:

a. Anteversion or anteflexion.

b. The location of tumors behind or above the body of the uterus.

c. During pregnancy and confinement deviation of the neck of the uterus behind or above, and sacciform dilatation of the anterior wall of its lower segment.

d. During recovery after confinement anteversion and retroversion are very pronounced.

2. *Congenital ante-positions of the uterus* depend upon shortening of the anterior wall of the vagina. In this position of the uterus there occur frequently:

a. Version and flexion of the organ posteriorly.

b. The occurrence of tumors anterior to the organ.

c. During pregnancy and confinement deviation of the neck of the uterus before and above, and sacciform dilatation of the posterior wall of its inferior segment.

3. Congenital lateral displacements, right or left, of the uterus, depend upon failure in the development of the broad ligament, the ligament of the ovary, the sacro-uterine ligament, or upon failure in the development of the wall of the vagina, by which the uterus is brought into a closer relation with the pelvis. Lateral deviations of the uterus dispose:

a. To lateral version and to lateral flexion of the organ.

b. To a condition in which tumors may occur before or behind the uterus.

c. During pregnancy or confinement to a latero-version of the uterus, and to unilateral sacciform dilatation of its lower segment.

d. During the sequelæ of confinement to latero-version of the uterus.

UNGUENT FOR THE TREATMENT OF TINEA.—DESCROIZILLES recommends the following unguent for the relief either of *tinea tonsurans* or *tinea favosa:*

℞.—Butter of cacao,
Wax . . . . . āā ʒiiss.
Croton oil . . . . . fʒv.—Mix.

Cut the hair short and remove the scales by the use of oil, then for a half minute or more, with light friction, apply a small quantity of the unguent to the diseased parts. The skin and the hair follicles soon become inflamed, and the fall of the hairs infected by the parasites is thus occasioned.—*L' Union Médicale*, August 1, 1885.

PILLS FOR PROFUSE PERSPIRATION.—

℞.—Agaricine . . . . . gr. viij.
Pulv. ipecac. et opii comp. . . gr. lxxv.
Mucilaginis . . . . . q. s.—M.
S.—Ft. pil. No. c. One or two pills daily.

Agaricine does not, like atropia, produce symptoms of intoxication when continued a long time.—*Journal de Médecine de Paris*, July 19, 1885.

ODORLESS IODOFORM.—DR. OPPLER recommends the following preparations of iodoform as being free from objectionable odor:

℞.—Iodoformi . . . . . 2 parts.
Caffeæ tostæ subtilissime pulv. . 1 part.
M.—Fiat ope spirit. æther. gtt. pulv.

℞.—Iodoformi . . . . . 1 part.
Ung. paraffin. . . . . 10 parts.
Caffeæ tostæ subtilissime pulv. . . 3 parts.
—*Centralbl. für Chirurgie*, July 25, 1885.

CASE OF CONGENITAL ABSENCE OF THE RIGHT KIDNEY.—DR. HOFACKER reports a case of congenital absence of the right kidney. The case is as follows: A post mortem was held on a child eight years of age, who had died of caries of the ilium and sacrum. The right kidney having been discovered to be absent, attention was drawn to the unusual development of the left kidney. This was nearly five inches in length and nearly three inches broad, double the size corresponding to the age and development of the child. Upon the right side no trace of a kidney was to discovered. To the left kidney a large renal artery proceeded, while on the right side no trace of this vessel existed, the aorta at the ordinary point of origin of the vessel being perfectly smooth; the right renal vein was also absent. In the bladder there was no opening corresponding to the entrance of the right ureter, but only a slight depression by which the trigone of the bladder was preserved. From the outer wall of the bladder it was possible to trace through the retroperitoneal connective tissue a cord which in one place permitted the entrance of a bristle and lost itself in the region corresponding to the normal location of the right kidney. This, without doubt, represented an undeveloped ureter.

The vasa deferentia were normal. The seminal vesicle on the right side was rudimentary and smaller than that of the left. The right testicle was absent. The bifurcation of the aorta was normal, and other abnormalties in the development of the different organs were not discoverable.—*Deutsche med. Wochenschr.*, July 23, 1885.

PHYSIOLOGICAL EXPERIMENTS UPON A DECAPITATED CRIMINAL.—MM. P. REGNARD and P. LOYE, in a series of physiological experiments made upon a decapitated criminal immediately after execution, consider that the following facts are established:

1. That sudden and general contractions occur at the moment of excitation of the spinal cord by the passage of the guillotine.

2. The disappearance of the reflexes, even the coarsest.

3. The evident action of the pneumogastric upon pulmonary contractility.

4. The manifest influence of the fibres of Reissessen upon this same contractility.

5. The innervation of the stomach and intestines due to the pneumogastric.

6. The plain influence of the vagus upon intestinal secretion.

7. Finally, verification of the mechanism of the muscles of the heart.

These physiological experiments simply confirm the results of those hitherto made on animals.

On the other hand, MM. Regnard and Loye hold that the facts observed in reference to duration of consciousness, may possibly confirm the belief of those psychologists who fear its persistence after capital punishment.—*Le Progrès Médicale*, July 18, 1885.

THE USE OF LACTIC ACID IN LARYNGEAL TUBERCULOSIS.—DR. H. KRAUSE, in following up the experimental application of lactic acid as pointed out by V. Mosetig-Moorhof, who has found it valuable in the local treatment of fungous caries, lupus vulgaris, super-

ficial epithelioma, and papilloma, has made use of the remedy in the local treatment of laryngeal tuberculosis. The cases which he records had previously been under treatment, and a great variety of agents was used without beneficial result. Among the remedies used were iodoformized glycerine, boric acid, carbolic acid, and creasote either with morphia or cocaine.

The cases in which the pathological condition was treated are fourteen in number, and microscopic examination showed the presence of the bacillus tuberculosis in every instance. The results of the local application of the lactic acid were as follows: Hand-in-hand with the decrease of the infiltration and the scar of the ulcer a diminution of pain was noticed, and at the same time diminution of the secretion. The subjective result so far as the larynx is concerned is, that in all the patients, without exception, the condition was markedly improved.

Concerning the return and persistence of the cure after cessation of treatment nothing can be reported on account of the limited time covered by the observations. Dr. Kraus considers, however, that the use of the acid is of certain efficacy in the treatment of this form of tuberculosis, and especially worthy of trial in the light of the failure hitherto experienced in the treatment of this affection of the larynx.

Even in cases in which, owing to far advanced pulmonary tuberculosis, and the general effects of the disease, only a most unfavorable prognosis could be given, the dysphagia accompanying the disease was much diminished by lessening perichondrial œdematous infiltration. The writer further does not hesitate to express a hope that in the least unfavorable cases in which laryngeal tuberculosis has not advanced too far, and the general constitution is well conserved, the use of lactic acid will render it possible to destroy the infiltrated tissue and effect the concurrent cure of the local process. The writer, in conclusion, also suggests the application of lactic acid in other diseases of the mucous membrane of the upper air-passages, among which may be mentioned the diffused swelling and circumscribed thickening accompanying chronic nasal pharyngeal and laryngeal catarrh.—*Berliner klin. Wochenschr.*, July 21, 1885.

THE DEPRESSING ACTION OF IPECAC ADMINISTERED IN LARGE DOSES UPON THE BLOODVESSELS IN PNEUMONIA.—DR. FERDINAND VERARDINI, in an excellent clinical and experimental study of the action of large doses of ipecac upon the bloodvessels in pneumonia, reaches the following conclusions:

1. Large doses of ipecac have been given empirically during past years by the most prominent physicians, as a depressing and antiphlogistic remedy in fibrinous pneumonia.

2. The use of large doses of ipecac (30, 60, 90, 120 grains, according to the case, and administered in twenty-four hours) has no harmful influence upon stage of sanguineous stasis, nor upon cardiac paralysis, and its emetic effect is only manifested exceptionally.

3. Without doubt the doses under consideration have beneficial influence upon the disease by diminishing the flow of blood to the lungs, and by facilitating the resolution of the pneumonia without causing the least risk to the patient.

4. That large doses of ipecac produce effects in the organism distinct from those of emetia. M. Verardini thinks he is the first to mention this fact. In reality, ipecac produces pulmonary ischæmia, although the active principle, emetia, occasions a very pronounced hyperæmia. These facts have been recognized experimentally.

6. The author, by producing simple pneumonia in animals, by means of divers irritating substances, such as cantharidine, ammonia, and pneumonic sputa, carried directly by the bronchi into the pulmonary parenchyma, has been able clearly to establish the comparative action of ipecac and emetia upon the heart and lungs.—*L'Union Médicale*, July 30, 1885.

CHOLECYSTOTOMY.—M. THIRIAR, in a communication to the French Congress of Surgery (*Revue de Chirurgie*, No. 5, 1885), deals with the following objections to cholecystotomy, an operation first performed by Langenbuch, of Berlin, in 1882. 1. The existence of a gall-bladder is necessary for the purposes of digestion in man. 2. Calculi may be formed elsewhere than in the gall-bladder. 3. The operation is a very serious and dangerous one. 4. Cholecystotomy or the production of a biliary fistula ought to be preferred. It is argued by M. Thiriar that the gall-bladder is not indispensable to the regularity of the digestive functions in man. This organ is absent in many of the mammalia, and occasionally it is found completely closed and atrophied in man. The formation of calculi elsewhere than in the gall-bladder is an extremely rare occurrence, except in certain pathological conditions which give rise to such formation in the biliary ducts and canals. These pathological conditions (cancer, obstruction of the biliary passages), however, constitute a formal contra-indication to operative interference. Cholecystotomy, it is acknowledged, is decidedly a difficult and delicate operation, but in considering the much diminished dangers of peritoneal lesions when produced with strict observance of the antiseptic method, M. Thiriar is of opinion that this procedure is the least severe and the least dangerous of all the varieties of laparotomy. It is a justifiable operation, he holds, in cases of biliary lithiasis that have resisted medical treatment, and in which violent paroxysms occur from time to time. With regard to the operation of cholecystotomy that has been proposed by Mr. Lawson Tait, although it is less difficult than cholecystectomy, it is attended by the inconvenience of leaving a biliary fistula, a condition not free from danger. Moreover, as it does not remove the organ in which gall-stones are formed, the production of these bodies may be continued. Two cases of cholecystectomy are reported in this paper. In one, the patient was a woman, aged 43. The gall-bladder contained a mass of thick bile, but no calculus. The operation lasted during one hour and a half, and resulted in complete success, without any complications. The subject of the second case was a woman in the fifth month of pregnancy. The gall-bladder contained twelve calculi. The operation lasted during one hour, and proved successful. The progress towards recovery was uninterrupted, and the pregnancy followed the usual course.—*The London Medical Record*, July 15, 1885.

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THE CHOLERA.

SINCE our last editorial on "Cholera Prospects," in THE MEDICAL NEWS of July 25th, the situation in Europe has materially changed for the worse The disease is spreading in Marseilles, cases have occurred in Gibralter, and a suspicious case has been reported from Bristol, England, causing considerable alarm in that country. In Spain cholera has continued to increase, and for the last week there have occurred in that country between five and six thousand cases and about fifteen hundred deaths per day, and the situation in certain localities, as described in the press despatches, is very gloomy, recalling the descriptions of scenes during the black death of the middle ages. In some villages all the physicians are dead, and dead bodies are lying in the streets, there being no one to bury them. The revenues of the kingdom are beginning to suffer seriously, and the Government finds it difficult to provide funds to meet the demands made upon it for assistance.

Any day may bring the news that the disease has gained a foothold in England, or in South America, or in West Indian ports in immediate communication with Spain. This country is therefore not only in danger, but in immediate danger, and our health authorities must hold themselves ready for the emergency. We do not anticipate that such scenes as have occurred in Spain will be repeated either in Great Britain or the United States, nor do we fear a great epidemic in either country, knowing the power which exists to stamp out the contagion by prompt and intelligent action.

An example of what can be done in this way was afforded in the city of Genoa last year. This city receives its drinking water by three different aqueducts drawing from three different sources. The first case of cholera appeared in Genoa on the 20th of September, and for the next three days there were two or three new cases each day, but on the 25th there were 51 cases. Investigation showed that no cases of cholera had existed in the vicinity of the sources of two of the aqueducts, but that the third might have been contaminated by cases which occurred on one of its feeders, fourteen miles away, on the 14th and 15th of September; and that of the first fifty cases of cholera in the city, 48 occurred in persons who habitually used the water brought by this aqueduct. The mayor of the city at once had this aqueduct closed, and by the first of October the daily number of cases of cholera had dropped to 27, from which date it rapidly disappeared. In this case skilled investigation located the cause and the executive action was prompt.

The next two months will be very dangerous to the north of France, Germany, the Netherlands, and Great Britain, and dangerous to this country, but we still have good reason to hope that the visitation of cholera to the United States will be deferred until next year, and thus permit another winter of sanitary work and preparation for what is almost sure to come sooner or later.

CHLORATE OF POTASSIUM POISONING AND ITS MORBID ANATOMY.

PERHAPS few announcements created more surprise, and few have been more incredulously received than that chlorate of potassium is a poison, and that instances of its poisonous effects are numerous. The first assertion is, however, undoubtedly correct, while the second also, must be admitted, if accuracy has been employed in the collection of cases, since, for instance, a thesis by Weinert is based upon a record of fifty cases, and Wegscheider has collected thirty cases.

It is true that most of the instances of poisoning reported are by quantities which are scarcely likely to be often taken, but, in the case of a remedy which has been so highly and universally esteemed, and which has generally been regarded as harmless, it becomes essential that all should appreciate its exact toxicological position. Accordingly, we avail ourselves of a case recently reported by Dr. Wilke, of Halle, in the *Berliner klinische Wochenschrift*, for April 20, 1885, in which the use of the salt as a gargle resulted fatally.

The patient, whom Dr. Wilke saw about 3 o'clock of August 8th, had, previous to his present illness, enjoyed good health. In the early part of the night previous he was restless, and therefore his wife did not arouse him early; when, however, she went to his bed, she found him unconscious, and subse-

quently aggravated biliary vomiting set in. Closer examination discovered extreme pallor, a cyanotic skin, cool extremities, a small and frequent pulse, and a temperature below normal, although it was impossible to determine it precisely by the thermometer, on account of the patient's restlessness. The mouth could only be opened by using great force, but there were perfect motor power and sensibility. The lungs were normal, the heart simply weak. There was tenderness over the stomach and its neighborhood, but some of this may have been due to a mustard plaster which had been applied by the physician previously in attendance. The remaining abdominal organs were healthy, and a healthy stool was secured by an injection.

Dr. Wilke at once suspected poisoning by some cause. No urine had been passed since the previous evening, a teacupful of dark-hued, turbid urine was drawn off by the catheter. This suggested to him chlorate of potassium poisoning. On further questioning, he learned that none had been taken internally, but that in consequence of a slight sore throat the patient had, for some time, been gargling his throat with a solution of the salt. Recently he had used it hourly, and had done so even the night previous. He had always bought from the apothecary large quantities of the drug, and being a very nervous man, even hypochondriacal about his throat, was determined to cure it at any price. Lately he had become very weak and pale, and two weeks previously had noted his urine to be so dark-colored that he sent for his physician, and consulted him as to the propriety of using the gargle. The doctor took some of the water, but seems to have made no report on it, giving the opinion that, as the potash was being used only as a gargle, it could not harm him. The patient continued to use the gargle from the 9th of July to the 8th of August, taking, it was estimated, over four pounds, or one and three-fifths ounces a day. Treatment was unavailing, and he died of collapse.

At the autopsy only a trifling amount of blood flowed from the abdominal aorta and vena cava, although great care was taken to secure it. The bladder was empty, but the urine drawn off before death contained a black sediment which the microscope showed to be made up of red corpuscles whose normal characters were markedly altered. They were, in various degrees, paler than in health. Some had apparently lost all their coloring matter. None were disk-shaped, but almost all spherical. Some were, however, elongated; some uneven and irregular. Most were smaller, but a few were larger than the normal disks. The smallest were disposed to adhere, but rarely was there any appearance of fibrin between them. Casts of the uriniferous tubules were also present, characterized by their unusual width and their irregular surface, and there were a few leucocytes, some of which contained some of the smaller corpuscles.

The kidneys were of normal size, the capsule stripped off readily. The external surface and section were darkened, and the pelves contained a sediment which agreed with that found in the urine. Dark brownish red striæ were observed in the cones running parallel with the straight tubes, and in the cortex were similar striæ less wide and less numerous, and more irregular in their course. These were found to be uriniferous tubules, distended with altered corpuscles, most numerous in the medulla and especially the neighborhood of the papillæ. In the cortex the tubules of the medullary rays were more often distended than the convoluted tubules of the labyrinth. In addition to the individual corpuscles contained in the tubules, there were also numerous irregular, lumpy, and cylindrical bodies apparently made up of the altered red corpuscles, or in some cases of their shells, as it were, fused into an infarcted mass. The epithelium of the tubules, where discoverable, was highly granular, especially in the cortex, where the nuclei of the cells were often obscured or invisible.

Granted, as seems necessary, that the above is a case of true chlorate of potassium poisoning by the drug used as a gargle only, it must also be admitted that such cases are extremely rare. That a man should use nearly an ounce and a half of the salt daily, for one month, in gargling his throat, almost presupposes a monomania on the subject, and it would seem exceedingly unlikely that such an experience should be often repeated, or that the use of the salt as a gargle is a dangerous practice. But Wormley, in his *Michro-Chemistry of Poisons*, reports a case related by Croft, in which a young woman, directed to gargle with a solution of potassium chlorate, and occasionally swallow a little of the solution, used nearly half a pound of the salt within a few days. Violent symptoms including vomiting, diarrhœa, subsequent constipation, and suppression of urine were followed by death in seven days.

Much smaller quantities internally administered are capable of producing poisonous consequences. Wormley reports another case in which a man took, in teaspoonful doses, during thirty-six hours, about two ounces of the salt. Collapse and suppression of urine were followed by death. Still another in which four children, from three to seven years old, took 154, 184, and 375 grains in, at most, thirty-six hours. All three died. An elderly man took, by mistake for Epsom salts, something over half an ounce and died in consequence. The autopsies in all these instances revealed conditions strikingly like those described in Wilke's case.

It is the domestic use of the medicine which is

most to be feared. The extreme frequency of throat affections in this climate, and the almost invariable use of chlorate of potassium for them, together with the prevailing impression that the drug is harmless in almost any quantity, make it not impossible that accidents like that just detailed may occur.

THE ETIOLOGY OF POLYHYDRAMNIOS.

THE origin of the amniotic liquor has been the subject of many investigations and of much discussion. Some have asserted that this liquor is a maternal, others a fœtal product, while the view now generally accepted is that it is partly derived from the mother and partly from the fœtus. Kormann, the most recent writer of a German work upon obstetrics, published at Tübingen in 1884, regards the amniotic liquor as coming from the vessels of the cord, from the vessels beneath the amnion, described by Jungbluth, and the vessels of the reflexa, and as partly, especially in the last months of pregnancy, consequent upon the activity of the kidneys of the fœtus. Afterward in considering the various causes of hydramnios, he fails to refer to its possible origin from the blood-vessels of the cord. Yet it would seem rational that if the amniotic liquor is in part due to the serous portion of the fœtal blood passing from the vessels of the cord, that there might be such excessive transudation as to cause hydramnios.

A most interesting case of hydramnios sustaining this hypothesis has recently been published by MANGIAGALLI in the *Annali di Ostetricia*. A woman near the end of a twin pregnancy suffered so much from distention, that puncture of the ovum presenting was made. The quantity of fluid discharged was small, but the alleviation of the patient's distress was very decided. Labor came on, and she was delivered of a living child by the forceps. The second bag of waters was then ruptured, six litres of water discharged, and the second child, presenting by the breech, was born. An examination of the secundines showed that there were two distinct pouches and two placentæ. One of the cords presented nothing abnormal, but the other, belonging to the hydropic sac, was only eleven inches long, encircled the child, and at two and one-third inches from the placenta it divided so that its parts were inserted in the partition wall between the two ova—upon this wall four very large ramifications of the umbilical vein, which was also large and distended, passed to the placenta—there being thus velamentous insertion of the cord.

Mangiagalli believes that the chief cause of hydramnios in this case was the increased tension in the umbilical vein and its vicinity by the abnormal disposition of the cord and its vessels.

A case reported by SCHATZ in the *Archiv f. Gynakologie*, 1882, presented the same condition of scanty liquor amnii in one pouch, and excess in the other.

GRENSER, in the *Centralblatt für Gynäkologie* of July 11th of this year, has reported two additional cases of this anomaly, occurring in twin births, in one sac of each there was polyhydramnios, and in both the others, oligohydramnios.

MUCIN.

STILL another of the proteids, which, according to many urinologists, interfere with the reliability of certain tests for albumen, is mucin. A very much more frequent constituent of urine than either peptone or propeptone, it is correspondingly important that it should not be mistaken for albumen. That hemialbumose or propeptone is an unusual constituent of urine is generally understood; but so much has been written, of late, of peptone, that there is danger of it being supposed that it is very common. But Dr. Johnson, who has made a systematic search for peptone, found it but once in some hundred specimens of urine. Mucin, on the other hand, is a much more constant constituent, and in the light of the latest information, we feel assured that many have not infrequently mistaken it for albumen.

A few words as to mucin itself. The glairy semi-transparent substance known as mucus, so familiar to all of us by its appearance in the nasal and respiratory passages in response to the slightest irritation, is mucin swollen by imbibition of water. But the words mucus and mucin are also interchangeably used. According to the analysis of Eichwald, mucin contains in 100 parts, 49.94 of carbon, 6.80 of hydrogen, 8.5 of nitrogen, and 35.75 of oxygen, but no sulphur. It completely disappears on ignition. It is abundantly present in the salivary glands, in the bile, in the contents of synovial sacs, in the mucus of the bronchial and intestinal mucous membranes, in the Whartonian jelly, and to a slight extent, it is said, in many, if not all, urines. In certain morbid urines it is very abundant.

It swells up enormously in water, without, however, being dissolved by it, but is soluble in dilute alkaline solutions, such as the urine, whence it is precipitated by acetic acid, an excess of which does not dissolve the precipitate. It is precipitated by alcohol, by all dilute mineral acids and by all the organic acids, including citric and acetic, and excepting, according to Dr. Johnson, picric acid. It is dissolved by concentrated mineral acids, but precipitated from solution in these on the addition of water. The presence of alkaline salts facilitates its solution in acids. The neutral and alkaline solutions of mucin are not precipitated by cupric sulphate, corrosive sublimate, or neutral acetate of lead, but

promptly by the basic acetate of lead. Millon's reagent strikes with the solutions of mucin, in connection with heat, a rosy-red color. After heating with hydrochloric acid mucin gives the sugar reaction with Trommer's test. It will be seen from the above, how important is a knowledge of mucin and its properties.

In consequence of its capacity to act as a ferment, on account of which it is held responsible for the acid and alkaline fermentations of urine, mucin has been called by Bechamp, nephrozymase.

As to the recognition of mucin, it is well known that in inflammatory diseases of the urinary passages it is often so abundant that it is easily recognizable in suspension in the urine. From solution in urine it is precipitated by any of the vegetable acids, though acetic is mostly used. If urine be underlaid with acetic or nitric acid, the mucin gradually appears in the urine above the point of contact, as a cloud-like, rather than opaque white coagulum like albumen; and when albumen and mucin are both present, the latter appears at the upper part of the column of urine, while the albumen is confined to a position just above the point of contact between the two fluids. It differs from the somewhat similar white deposit of acid urates in that it is not dissipated by heat. It is plain, therefore, that any test which requires the simultaneous use of citric or acetic acid is liable to error from this source. Such, however, is not the case, according to Dr. Johnson, with picric acid, which is, therefore, according to him, the only one of the comparatively new tests for albumen which can be relied upon.

To demonstrate the smaller quantities of mucin it is usual to treat urine with twice its bulk of 95 per cent. alcohol, filter off the precipitate, and add water. The solution thus obtained is rendered turbid by acetic acid, and the turbidity does not disappear on adding an excess of acetic acid, but does on adding hydrochloric or nitric acid. It exhibits with caustic soda and solution of cupric sulphate the biuret reaction, which is not obtained with the filtrate after separating the precipitate with neutral acetate of lead.

AN EXTRAORDINARY CAUSE OF VESICO-VAGINAL FISTULA.

MASSALITINOW, in the *Centralblatt für Gynäkologie*, has reported two cases of severe injury in newly married women from the first coitus. In the one case there was very serious hemorrhage from a tear of the perineum, and also of the vagina. In the other, a healthy, nineteen year old girl, hemorrhage, less grave, however, occurred; and, upon examination, three days after, a urinary fistula was found near the margin of the uterus, which was anteflexed. Massalitinow explains the occurrence of this lesion by supposing that, the vagina being short, and, at the time of coitus, the bladder being full, hemorrhage into the vesico-vaginal wall occurred at this point, and then ulceration opened a communication between the bladder and the vagina.

This explanation does not seem quite satisfactory, and probably, as suggested by Reimann, there was in each case other violence than any done in coition to explain such lesions. It is to be regretted that men who inflict such cruel injuries upon women do not have as certain, swift, and severe punishment visited upon them as befalls the adventurous male bee who impregnates the queen.

UNDER the title of "Progress of Public Sentiment," the *Journal of the American Medical Association* in its issue of last Saturday, cheerily states that:

"Evidences are not wanting that the principal performers in the grand comic play of "Much Ado about Nothing," which was commenced so brilliantly on the 29th of June by twenty-eight prominent members of the profession in Philadelphia, are becoming weary of their work. Some who were induced to join in the play from the first impulse have already withdrawn, and others are evidently preparing to follow.

"Dr. John H. Packard, of Philadelphia, who was appointed Secretary-General of the Congress by the Committee of Arrangements at the meeting in Chicago, and whose name was published as one of the twenty-eight who declined to accept any place in the revised organization, has recently withdrawn his declination and accepted the position."

We are just informed by Dr. Packard that the above statement, so far as it concerns him, is absolutely false and without foundation, and that he has written to the Editor of the *Journal of the Association*, a letter for publication to that effect. While the New Committee has never had any claim to public support, we yet regret that, to stimulate its waning strength, it should still further estrange public confidence by again resorting to the method of wilful misrepresentation to which it owed its birth.

Under the circumstances it is necessary for the *Journal of the Association* to present the proof of the correctness of its statement concerning the intentions of other gentlemen, before the profession can give to it unqualified belief.

REVIEWS.

CHOLERA: ITS ORIGIN, HISTORY, CAUSATION, SYMPTOMS, LESIONS, PREVENTION, AND TREATMENT. By ALFRED STILLÉ, M.D., LL.D. 12mo. pp. 164. Philadelphia: Lea Brothers & Co., 1885.

A TREATISE ON ASIATIC CHOLERA. Edited and Prepared by EDMUND CHARLES WENDT, M.D., in association with DRS. JOHN C. PETERS, of New York; ELY MCCLELLAN, U. S. A.; JOHN B. HAMILTON, U. S. Marine-Hospital Service; and GEORGE M. STERNBERG, U. S. A. With Maps and Engravings. 8vo. pp. 403. New York: William Wood & Co.

WE should be well prepared to meet this dread scourge if it crosses the Atlantic either this year or next

Ample warning has been given, and the sanitary authorities seem alive to the necessity of taking all proper precautions to avoid its importation. The publication of these works meets a demand on the part of the profession for fuller information on the subject than can be obtained from ordinary text-books.

Dr. Stillé's work supplies this demand in a way which will, we feel sure, meet the approval of every practitioner who reads this "complete but compendious history of the disease as it occurred at different periods and in various countries." The sections on prevention and treatment are specially valuable. The author does not accept the conclusions of Koch regarding the bacillus.

Dr. Wendt's treatise naturally lacks the unity and continuity of the smaller work, as it is in reality a series of essays on cholera by various authors, which will prove most serviceable for reference.

Dr. Peters gives in detail a history of the epidemics from the earliest up to the present one, dealing very fully with the American outbreaks. Dr. Ely McClellan describes the epidemics as they have occurred in the American army. The section on Etiology, by Dr. Wendt, is carefully prepared, and all possible theories are discussed. The recent investigations of Koch and others are fully discussed, and the Editor favors the view that the comma-bacillus will be found to be the specific germ of the disease. The chapters on Symptomatology, Course, Sequelæ, Morbid Anatomy, and Treatment are also by Dr. Wendt. Chapter XXXVII., on the Methods of Bacterioscopy, is a piece of unnecessary padding. Dr. Sternberg writes an interesting section on the destruction of cholera germs, and Dr. John B. Hamilton discusses quarantine and other preventive measures. Eight maps and charts, with several woodcuts, add to the value of the work.

THE INVALID'S TEA-TRAY. By SUSAN ANNA BROWN, author of "Forty Puddings," "In Bridget's Vacation," etc. Pp. 67. Boston: James R. Osgood & Co., 1885.

THIS slender little book, with its white margins of such unusual width, that a blankness overspreads the entire volume, is perhaps intended to be gently significant of the spareness of the diet which a sick man may be invited to enjoy. It is courteously dedicated to the family physician

> "Whose genial visit in itself combines,
> The best of cordials, tonics, anodynes;"

and after a few preliminary hints excellent in their character, the author gives some seventy or eighty recipes for various culinary preparations. These formulæ might easily have been printed so as to cover less than a couple of leaves, but by placing one or two only in the centre of a page the number of sixty-seven is attained. Page sixty for example, is thus constituted: "SHELLS. Put one cupful of shells in a quart of cold water and place on the stove where it will simmer gently five or six hours. Add more water, if necessary, while it is boiling. There should be about a pint when it is done."

For any specification to the contrary the "shells" here directed may be oyster-shells, and if such conchological specimens are used, exact instructions as to the degree of concentration required in the resulting concoction are surely needless.

SOCIETY PROCEEDINGS.

CHICAGO GYNECOLOGICAL SOCIETY.

Stated Meeting, June 19, 1885.

THE PRESIDENT, H. P. MERRIMAN, M.D., IN THE CHAIR.

PROF. J. H. ETHERIDGE read

A REPORT OF A CASE OF A FŒTUS ENCLOSED IN ITS SISTER'S PLACENTA, WITH EXHIBITION OF THE SPECIMEN.

On 26th September, 1882, Mrs. T. J. B., twenty-two years old, of a nervous, sanguine temperament, healthy, was delivered of a mature female child, after a normal labor of four hours' duration. During the delivery of the placenta some abnormity was detectable, which proved to be a *fœtus papyraceus*.

The outer surface of the placenta at once arrested attention. A deep furrow separated the two placentæ, which were united, on their amniotic surface, by a series of compact white bands, discoverable only by pressing through the furrow. The large placenta constituted about two-thirds of the entire mass. The smaller placenta was thin, flat, and compact, being about one-third as thick as the larger one.

The placenta of the living child was normal throughout its extent. Cotyledons were well marked, the tufts and villi presenting normal microscopical characters. The placenta of the *fœtus compressus*, in about nine-tenths of its extent, was whitish-yellow, and very firm. The whole thickness of this portion of the placenta, excepting its amniotic surface, presented one unbroken mass of fatty degeneration. The remaining one-tenth of the placenta presented a carneous appearance, evidently a transition stage between normal placenta and complete fatty destruction. Its cotyledons were enmassed and its tufts and villi solidified, and the whole interspersed with initial fatty depositions.

The two segments were wholly different at time of birth. The placenta of the living child presented a normal appearance. The placenta of the *fœtus papyraceus* presented the appearance of a closed bladder, which, upon examination, was found to be an unruptured amnion, containing amniotic fluid and a fœtus. The development of the *fœtus compressus* corresponded to the third month. The cord of the *fœtus papyraceus* was two inches longer than that of its fellow, and much thinner. The cord was inserted into the margin of the placenta, near the fully developed organ.

Among the causes producing the death of the fœtus, the following may be mentioned: 1. Faulty insertion of the cord, at the margin of the placenta, adjoining its fellow (Kieselhausen). 2. Faulty structure of the cord; thin, twisted, or deficient in the jelly of Wharton (C. Braun). 3. Disease of the placenta. 4. Traumatism. 5. The implanting of the umbilical vessels too closely together, and arterial anastomosis.

Fœtus papyraceus is of seldom occurrence. A search

through the library of the Surgeon-General's Office at Washington resulted in finding only five references to reports of similar cases.

DR. PHILIP ADOLPHUS thought that such cases were of more frequent occurrence than the remarks of the author of the paper would lead one to believe. In twin pregnancy, the death of one fœtus before parturition was not infrequent.

PROF. W. W. JAGGARD agreed with Dr. Adolphus that while such cases were rare, a more extended research into the literature of the subject would have revealed a much larger number of cases. While it was true that American and English text-books usually merely mentioned the fact of occurrence, German, French, and Italian treatises devote a chapter to the subject. The last edition of Schroeder contained an excellent *résumé* of the literature. The case, reported and exhibited by Prof. Etheridge, resembled in many points the case in the Pathological Museum of the Jena Lying-in Hospital, fully described by B. S. Schultze. This specimen showed the placenta of a mature fœtus, and adjoining it a second egg, corresponding to the sixth week of pregnancy, with its own decidua and unruptured amnion.

Prof. Etheridge's case was chiefly interesting as bearing upon a subject of theoretical importance, *i. e.*, superfecundation and superfœtation, On *à priori* grounds, it is possible that superfœtation can occur as late as the twelfth week of pregnancy—when *decidua vera* and *reflexa* become united. Up to this time, it is possible that egg and spermatozoid may come in contact. Superfœtation is also possible in cases of double uteri. Up to the present time, however, no case has been recorded which does not admit of a simpler explanation. There exists a great weight of evidence in favor of superfecundation. Mares give birth simultaneously to horse and mule foals; bitches, running during the period of rut with different breeds of dogs, throw young of different, so-called bastard forms, corresponding to the breeds of the male progenitors; the same is true of cats.

A woman may give birth to twins, one of which is white, one black. The latter fact, however, does not necessarily demand for its explanation intercourse at or near the same time with a white and a black man, since in crossing races the offspring may resemble either father or mother, or one child may resemble the male, the other the female progenitor. There could be no reasonable doubt as to the accuracy of Prof. Etheridge's diagnosis.

DR. JOHN BARTLETT had seen one case of *fœtus compressus*, in the Chicago Woman's Hospital, about four years ago. One fœtus was mature, the other corresponded in development to the fifth month of pregnancy.

DR. EDWARD WARREN SAWYER referred to the fact that in ectopic pregnancy no compression of the fœtus was observed. He alluded to a case, in which he performed laparotomy three and one-half years ago. The fœtus weighed eight pounds. There could be no question about superfœtation in Prof. Etheridge's case. Fœtation, by inclusion, might be considered as explanatory of many of the monstrosities which are so commonly seen.

PROF. DANIEL T. NELSON thought it would be interesting to know how much force was necessary to compress the fœtus as in Prof. Etheridge's specimen. He referred to the experiments of Prof. Park, of the Massachusetts Agricultural College, in the determination of the expansile force of growing squashes and pumpkins.

THE PRESIDENT wished to know whether the death of the fœtus occurred before compression, or whether it resulted from that factor. The marginal insertion of the cord doubtless was an important etiological agent. When the uterus was in the pelvic cavity, compression was greater. He referred to the fact that in twin pregnancies, it is unusual to find both children equally developed, and frequently the birth of one precedes that of the other by minutes, hours, or even days.

DR. HENRY T. BYFORD read a

REPORT OF A CASE OF LEIO-MYOMA OF THE VAGINA AND UTERUS.

The patient was a widow, about thirty-five years old. Was married ten years, without becoming pregnant. She had no decided symptoms of disease, except an occasional backache, some leucorrhœa. She was treated for uterine inflammation three years before, and no tumor was discovered. Since that time, she has menstruated every two weeks. Catamenia usually lasted five days, and were normal as to quantity. Twelve years ago, she noticed a tumor about the size of a hickory nut just within the vagina. This swelling had since that time grown steadily, until its protrusion from the vagina, about January 12, 1885, caused great inconvenience. Even at that time, the pain was promptly relieved by an opiate, administered by Dr. Doering. Two or three days subsequently, the tumor became black, swollen, and emitted a gangrenous odor. Slight septicæmia followed cauterization with nitric and carbolic acids. The tumor was attached to the anterior wall of the vagina. The tumor was subsequently crushed off, and the patient recovered. Indagation revealed a protuberance, about the size of a goose egg, upon the right anterior surface of the uterus, which was apparently a leio-myoma.

The following points of interest are to be noted in connection with the case:

1. The occurrence of both tumors in the same person.
2. The slow growth of the vaginal as compared with the uterine tumor.
3. Sloughing of the capsule, immediately after protrusion from the vagina, without impairment of the vitality of the tumor, proper.
4. Entire absence of sensitiveness to strong acids.
5. The production of a pedicle by ligaturing the proximal end with a fine wire.
6. Sterility, antedating the discovery of the uterine tumor.
7. The influence of ergot upon the uterine tumor.

DR. EDWARD WARREN SAWYER thought the locality of the vaginal tumor was interesting but not unusual.

PROF. DANIEL T. NELSON inquired whether or not fibroid tumors occurred by preference in the anterior vaginal wall. He thought, as regards the operation, an elliptical incision around the base, and enucleation of the tumor, would have fulfilled the indications equally well.

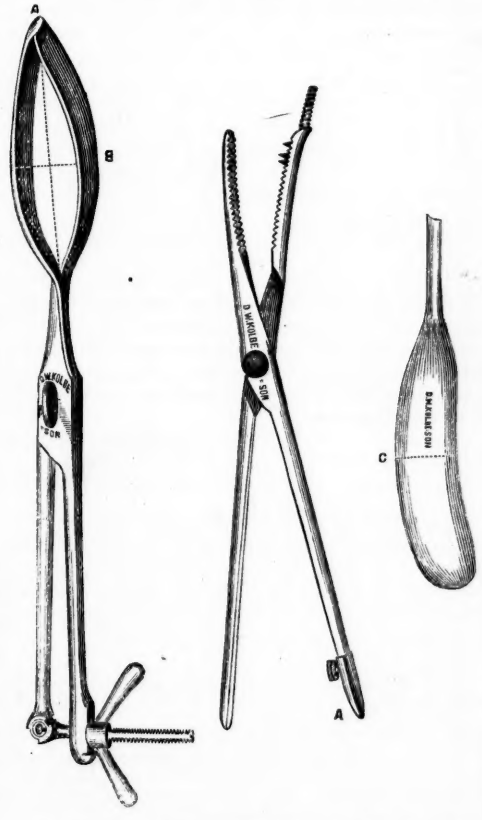
NEW INVENTIONS.

NEW CRANIOTOMY INSTRUMENTS.

BY JOSEPH PRICE, M.D.

THE craniotomy forceps figured below have the following peculiarities: 1. Thin flat blades, one and three-quarter inches wide, to allow easy application in markedly deformed pelves, and the weight principally distributed in the handles. 2. The Hodge angulation for use on the superior strait. 3. The absence of fenestra to increase the strength of the blades for powerful compression and traction, and to allow more ample protection in operative procedure during perforation, etc. 4. A greater cephalic curve, so that the points come in apposition to prevent slipping. 5. A screw on the end of the handles to cause greater compression than could otherwise be exerted.

Another forceps for a similar purpose, one specially intended for effectually crushing the occipital and facial



bones, has one blade (handle) terminating in a flat sharp-pointed perforator; this is covered in use by a leather shield to protect the soft parts during introduction. This shield is not removed, but the perforator cuts through it when it is pressed firmly against the fœtal cranium. The other blade has attached to it a blunt screw, which is intended to be screwed into the spinal canal of the child for aiding traction, and fixation for crushing the occipital and facial bones. This screw is so blunt that damage could hardly be done *even by an inexperienced operator*. Made by Mr. Kolbe, instrument-maker, 1207 Arch Street, Philadelphia.

1317 SPRING GARDEN STREET,
August 14, 1885.

CORRESPONDENCE.

TREATMENT OF THE OPIUM HABIT BY CODEIA.

To the Editor of THE MEDICAL NEWS.

SIR: I desire to call your attention to a remedy for the opium habit. I first commenced the use of this remedy in 1883, and since that time twenty-four cases have been permanently cured under my treatment by the use of this drug. It is codeia, a drug with which all physicians are familiar; but I have known but two members of the profession who were acquainted with the proper method of its use for this trouble. In order to use the remedy properly it is necessary to be thoroughly familiar with the past life of the patient, the length of time opium has been used, and the amount used. To cure the patient of the habit I commence, as a rule, with two grains of codeia three times a day, and increase the dose until the same effect is produced upon the system that is produced by the opium.

After the use of opium has been supplanted by the use of codeia, the system has become accustomed to a drug the use of which can be dispensed with in a very short time. Codeia, when used in this manner, does not block up any of the secretions, and has no other effect upon the stomach than to give the patient a slight increase of appetite. It has a slight tendency to constipate the bowels; and with some it produces an after depression, but not with those who have used opium to any great extent.

Previous to the use of this remedy it was my practice to use coca in certain cases. I found, however, that it constipated the bowels, and took away the appetite; and that, after continued use, it was almost as difficult to get rid of the coca habit as it had been to become relieved from the morphia.

With the use of the remedy some patients must have a tonic treatment; and if constipation exists, I have found the aloin pill, No. 1, to be the best remedy.

Respectfully,
W. H. LINDENBERGER, M.D.

BARTLETT SPRINGS, CALIFORNIA, August 6, 1885.

NEWS ITEMS.

CHICAGO.

(*From our Special Correspondent.*)

THE ANATOMICAL BILL.—Success has at last crowned the efforts of the Demonstrators' Association of the State of Illinois. As the result, more particularly of the zeal, industry, and united effort of the members of this Association, "An Act to promote the science of medicine and surgery in the State of Illinois," was passed 24th June, 1885, approved 26th June, 1885, in force 1st July, 1885.

The Act provides: I. That superintendents of penitentiaries, houses of correction, and bridewells, wardens of hospitals, insane asylums, and poor-houses, coroners, sheriffs, jailors, city and county undertakers, and all other State, county, town, and city officers in whose custody the body of any deceased person, required to be buried at public expense, shall be, shall give permission to any physician or surgeon (a licentiate of the State Board of Health), or any medical college or school, public or private, of any city, town, or county, upon his or their request therefor to receive and remove free of charge or expense, after having given proper notice to relatives or guardians of the deceased, the bodies of such deceased persons to be buried at public expense, to be by him or them used within the State for advancement of medical science, preference being given to medical colleges or schools, public or private; said bodies to be distributed to and among the same equitably, the number assigned to each being in proportion to the students of each college or school;

Provided, however, that if any person claiming to be and satisfying the proper authorities that he is kindred to the deceased shall ask to have the body for burial, it shall be surrendered for interment; *and provided further*, that any medical college or school, public and private, or any officers of the same, that shall receive the bodies of the deceased persons for the purpose of scientific study, under the provisions of this Act, shall furnish the same to students of medicine and surgery, who may be under their instruction, at a price not exceeding the sum of five dollars for each and every such deceased body so furnished.

II. A sufficient bond that the body or bodies shall be used only for the promotion of medical science within the State must be given, and whosoever shall sell or buy any such body or bodies, or shall traffic in the same, shall be deemed guilty of a misdemeanor, and be subject to fine and imprisonment.

III. The penalty for the officer refusing to deliver the body, etc., is fixed at $50 to $100 for first offence; $100 to $500 for second offence; $500 or more, or imprisonment for six to twelve months, for third offence.

IV. It is the duty of those who receive bodies, to bury or cremate the remains of all bodies after they have answered the purpose of medical science.

V. "An Act to promote the science of medicine and surgery in the State of Illinois," approved 16th February, 1874, in force 1st July, 1874, is hereby repealed (Hurd's Revised Statutes, 1883, pp. 745-746).

The county board, at its session, Monday, 20th July, 1885, issued instructions to the wardens of the county hospital, poor-house, and insane asylum, and to the coroner and county physician, to turn over the unclaimed bodies to any physician, representing a medical college, who would file a bond for $10,000.

The strenuous struggle between the medical men of Chicago and the members of the county board for the possession of the pauper dead has thus been terminated.

APPOINTMENT.—Dr. John E. Owens (Jefferson, 1862) has been elected one of the consulting surgeons to Michael Reese Hospital.

WASHINGTON.

(From our Special Correspondent.)

THE NEW ARMY MEDICAL MUSEUM AND LIBRARY BUILDINGS.—Bids were opened at the office of Col. Thomas L. Casey, on Friday, the 7th instant, for the erection of a fire-proof building for the Army Medical Museum and Library. The following were the bidders and total amounts bid, including the heating apparatus: D. C. Weeks & Son, New York, $233,637; Frank Baldwin, Washington, D. C., $185,490; Bright & Humphrey, Washington, D. C., $179,987; August Getz & Co., Washington, D. C., $194,000; M. A. McGowan, Washington, D. C., $182,540.17; C. A. Schneider & Sons, Washington, D. C., $198,405.33; D. J. McCartney & Co., Washton, D. C., $200,595; J. F. McDermott, Washington, D. C., $191,600.

CHICAGO PHYSICIANS AND THE NEW ORGANIZATION OF THE CONGRESS.—Believing that the American Medical Association, at its late meeting in New Orleans, took such action with reference to its Committee appointed one year before, to unite, arrange for, and organize the ninth International Medical Congress, as to nullify in part the work performed by said Committee, thereby jeopardizing the success of the proposed Congress, and putting the medical profession of this country in a false and unfavorable light, the undersigned disapprove of this action of the Association, and decline to serve in the positions to which they have been appointed in the Congress as at present organized.

A. Reeves Jackson, N. Senn,
Henry M. Lyman, Charles T. Parker,
James Nevins Hyde.

CHARLESTON PHYSICIANS AND THE NEW ORGANIZATION.—The undersigned, for reasons connected with the changed circumstances in the organization of the proposed International Congress, since their appointment in the several Sections, hereby respectfully withdraw their names.

Middleton Michel,
F. Peyre Porcher,
Francis L. Parker.

OTHER RESIGNATIONS FROM THE NEW ORGANIZATION.—We are informed that Dr. Edwin M. Snow, of Providence, has declined the Vice-Presidency of the Section of Collective Investigation, Nomenclature, and Vital Statistics, and that Dr. D. Bryson Delavan, of New York, has declined the secretaryship of the Section of Laryngology.

Dr. Thomas F. Wood, of Wilmington, N. C., has declined to serve on the Council of the Section of Practical and Experimental Therapeutics; likewise Drs. J. Rufus Tryon, U. S. N., and Alfred A. Woodhull, U. S. A., on the Council of the Section of Military and Naval Surgery and Medicine; and Dr. Christian Fenger on the Council of the Section of Pathology.

A GERMAN OPINION ON THE CONGRESS ORGANIZATION.—The International Medical Congress, to be held in Washington in 1887, is in great danger, if not of being totally wrecked, of at least losing those characteristics without which such gatherings would degenerate into insignificant meetings.

We have, heretofore, pointed out that the preparations for the Congress, under the direction of the Secretary-General John S. Billings, were progressing most satisfactorily. The officers, the members of the General Committee, and of the Executive Committee, the presidents, secretaries, and councillors of Sections, appeared to us to have been selected with remarkable skill, and we missed scarcely a name which is well known and held in esteem in Europe. In addition to the great American Medical Association the regularly organized State and local medical societies, as well as those which were devoted to special subjects, were in our opinion entitled to representation.

The hopes which were based on such an arrangement as was proposed are, in an entirely incomprehensible manner, destroyed by the American Medical Association, and permanently so, unless a remedy is very speedily found.

The original committee, with Austin Flint as President and J. S. Billings as Secretary-General, proceeded in full accordance with the principles of former congresses, and in comformity with the understanding with which the Congress at Copenhagen accepted the invitation to America—to wit, that the professional status of the United States in the Congress should be represented in its entirety as a national body, which should include all medical societies and bodies with common and special aims. The American Medical Association concluded otherwise. By it the invitation was construed in a different sense, but in Copenhagen it was universally understood as coming from the profession of the United States, and so did Dr. Billings and his associates understand it.

The American Medical Association put no such interpretation upon it, and instead of feeling concern for the success of the International Medical Congress, it allowed itself to be influenced by merely selfish motives. At its meeting held this year at New Orleans, it annulled all that the committee had brought about by its remarkable energy. Secretary-General Billings warned them in vain, and explained the correct relation of the profession of the United States to the International Congress. The entire programme, prepared with so much difficulty, was thrust aside, thirty-four members added by specific authority by the original committee were stricken off, and thirty-eight new members of the committee were appointed. The ruling idea was to bring the International Congress completely under the leadership and authority of the American Medical Association, and to elect additional members of the committee; not because of their ability, but because they came from the several States and Territories. It was decided, in a word, that the Congress should be a gathering of the American Medical Association, with a somewhat greater number of foreign guests than could otherwise be invited.

The motives of those opposing the excellent original committee appeared to spring from injured ambition, which had not received recognition. They had long assumed a threatening attitude, and were anxious to reap the fruits of their underhand work.

Accordingly, an old controversy was utilized, which has divided the physicians of the United States into two factions, distinguished as the old code and the new, differing from each other in that one observes the strictest, the other a lax attitude in reference to consultations with irregular practitioners. Now, a number of the followers of the new code were selected as members of the various committees, and their opinion on the code question was held by the Association to be sufficient ground to exclude them. Whatever may be thought of the question of professional ethics in America, the American Medical Association was not justified in making this a criterion for membership in the International Medical Congress, whose whole character must always remain entirely uninfluenced by such local differences.

Because the opponents of the original committee had a majority in New Orleans, the new committee chosen was called together on the 24th of June at Chicago, and its meeting conducted in the interests of the majority. This procedure excited public opinion in the United States in the highest degree. The formal right of the American Medical Association thus to act is questionable, so that nothing remained except for the leaders of the North American profession to deny responsibility for such a procedure, and at the same time to refuse to participate therein. This was done unanimously.

The most eminent physicians of Philadelphia, Boston, and Baltimore have refused office in the new organization, and the same action is expected on the part of the physicians of other cities. Of how little real importance the code question is in this matter may be inferred from the action of the medical profession of Philadelphia, whose members are thoroughly in accord with the principles of the old code, and yet were the first to protest against the action of the American Medical Association.

Whatever may be thought of the value of international scientific and medical congresses, it is certain that the European profession this time would willingly have availed themselves of the invitation of their colleagues in the United States. This, certainly, we can affirm of Germany. As the matter now stands, one may fairly hesitate to attend, since a local result only can be attained. With many there will be little inclination to take part in a Congress to which the 40,000 physicians of the United States are not admitted, but only a small minority of them, inasmuch as the American Medical Association in all its branches numbers only 3000 members. We were well pleased to act under the leadership of Austin Flint and Billings, but we have little confidence in that of Shoemaker, who is merely known to us through his oleates. — *Deutsche medicinische Wochenschrift.*

A FRENCH OPINION ON THE CONGRESS ORGANIZATION. —We learn from the *Medical Times* that the organization of the International Medical Congress, to be held at Washington, has met with difficulties with our brothers beyond the sea. The American Medical Association does not approve of the acts of the Committee named at Copenhagen. although it contains a large majority of its own members. It desires to replace the Committee by another, chosen entirely from its own membership.

We do not wish to criticise the American Medical Association, but it is undeniable that this method of procedure is contrary to that hitherto followed in the organization of the International Medical Congresses, and, as the *Times* justly says, runs the risk of compromising the success of the International meetings in the

future. What is not less certain, and not less serious, is, that many American members, who in this country are held in the highest esteem, are estranged from the Congress. Now, if the hope of extending the circle of our acquaintance and of forming new ties is a powerful attraction for us, we will be not the less happy to see again those whose names have been long known to us, and whom we are proud to call our friends. There is no doubt that what disaffects them will cool the ardor of their colleagues in the Old World too much to allow them to trust themselves to the uncertainties of an ocean voyage. We have hopes, however, that our American colleagues will see that the Association does not lose sight of the objects for which the International Congress was originated, and that we shall yet find at Washington a branch of the ancient tree bearing, under a new sun, fruits the more beautiful, because fertilized by fraternal love and the spirit of reconciliation.—*Le Progrès Médical.*

BRITISH OPINIONS ON THE CONGRESS ORGANIZATION.—There is something very ludicrous in the attitude of the Committee appointed by the American Medical Association, and which, on its own authority alone, presumed to undo the work already accomplished by the Committee specially appointed by the Congress at Copenhagen. The former self-constituted body has deposed the well-known and respected physicians elected by the latter to preside in the various Sections, many of whose names are of world-wide renown, and replaced them by a long string of nonentities, scarcely one of whom has ever been heard of outside the village in which he gains a living. The few celebrated physicians who were graciously permitted to retain official posts have naturally and properly shown their disgust by declining to be associated with the strangely mixed representatives of American medical science who are elevated into notoriety by the action of the Association ring; and things are now at such a pass that even the home journals are reckoning up the meeting as certain to be a miserable failure. The more sensible organs, however, are tendering the malecontents a piece of advice which they will do well to act upon, namely, that at their next meeting they should quietly determine their official existence, and resign the organization of the Congress to men of standing in the profession, and who will be able to command confidence and respect on this side of the Atlantic. Unless some definite action of this kind is speedily taken, it is a moral certainty that the Congress, if persisted in, will lose every atom of its international character; for no one is going to contribute papers, or be at the expense of reading them to an assembly of mutual admirationists, whose meddlesome conceit is scarcely equalled by their obscurity in the world of medicine. We have still, however, sufficient faith in the good sense of our American *confrères* as a whole, to feel assured that the little band of nobodies will speedily be sent to the rightabout, and the direction of the arrangements reassumed by the men who ought never to have resigned the trust reposed in them.—*Dublin Medical Press.*

The Boston Medical and Surgical Journal publishes the following letter from Sir William MacCormac, Secretary-General of the London Congress of 1881:

"I have seen in medical papers, and heard through private sources, that a serious disagreement has occurred in respect to the organization of the ensuing International Congress in Washington. A few of those who had been concerned in organizing the London Congress, recently met to talk the matter over, for we feel that any failure which might attend the Congress in the United States would be little short of a professional disaster. I do not myself think, and most here would share my opinion, that a congress from whose ranks some of your best physicians and surgeons have determined to withdraw, and whose members are to be further restricted to such as belong either directly or by affiliation to one medical body in America, would be likely to be attended by many colleagues from this country.

"Speaking from personal knowledge, an International Congress cannot be a success, unless taken up in the warmest and most self-sacrificing manner by all the principal men in the country where it is to be held. I was present at the meeting in Copenhagen, where the invitation to meet in America in 1887 was given, and after some discussion accepted. I am sure it was present to the mind of every one there, that the invitation was one from the profession of America, and not from any section of it, or any particular medical society in it. Otherwise I feel pretty certain Professor Virchow's invitation to meet on the next occasion in Berlin would have been accepted.

"Even now, it would appear to me wiser to have that invitation renewed, or to meet in some other place than to have a meeting in America, from which, so far as we may at present judge, many of the chief men on both sides of the Atlantic would absent themselves."

AMERICAN OPINIONS ON THE CONGRESS ORGANIZATION.—Place the blame where we may, either with the original committee, the American Medical Association, the new committee, or the disaffected members of the profession throughout the United States, we can but acknowledge that the arrangements for the meeting of the International Medical Congress are, upon the whole, in a very bad fix; that the prospect for a successful Congress is very much threatened; and that the medical profession of the United States does not present a very enviable aspect to the outside world.—*Texas Courier-Record of Medicine.*

Died of an overdose of reconstruction! A good epitaph for a dead Congress.—*Louisville Medical News.*

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION was held at Cardiff on the 28th, 29th, 30th, and 31st of July, under the Presidency of Dr. W. T. Edwards, of Cardiff.

Dr. W. Roberts, of Manchester, delivered the Address in Therapeutics, which was largely devoted to the consideration of questions of diet in disease. After referring at some length to the food customs of Great Britain, and their effects on different constitutions, Dr. Roberts continued: "In a considerable number of conditions, our patients are unable to take solid food, and are reduced to the necessity of using food which can be administered in the liquid form. This is usually the case in the febrile state and in serious organic disease, especially of the abdominal organs, and in the terminal stages of almost all diseases. There are other conditions in which, although the patient may have the ability to take solid

food, it is not desirable that such food should be administered to him. In narrowing of the pylorus or other part of the digestive tract, in ulceration of the intestinal mucous membrane, it is obviously undesirable to administer articles of food which are capable of forming lumps or masses which may block up the narrowed parts of the intestinal tube, or irritate the ulcerated surfaces. There is thus a large field for the employment of liquid food; and one of the most embarrassing tasks in clinical dietetics is to devise food in this form in sufficient change and variety, and having at the same time an adequate nutritive value. Our resources in this state of things consist of milk, beef-tea, and other meat decoctions, cold-made meat infusions, raw eggs, and the various gruels." He then spoke of the dietetic values of milk, beef-tea, and other meat decoctions, eggs, fortified gruels, and concluded as follows: "A matter of interest, in designing food for the sick-room and nursery, is the consideration of the special properties of the several kinds of cereal and leguminous substances used as food. In point of chemical composition, the several kinds of cereal grains are closely allied; still there are differences between them, and these differences may be of importance. The proteid of wheat is not quite identical with that of oats or barley. On the other hand, leguminous seeds differ importantly in composition from the cereal grains. Taking the lentil as a type of the leguminous group, it is to be observed that lentil flour contains twice as much proteid matter as wheat or oat flour, and almost twice as much lime. Moreover, the proteid of the leguminous seeds differs materially from that of wheat or oats. These differences are probably of not a little importance in feeding the sick and the young; and, if we had more knowledge and experience in their use, we could, perhaps, utilize with advantage these several cereal and leguminous products, and combine them in varied ways to meet the indications and necessities of different cases.

The invitation to hold the meeting of 1886 at Brighton was accepted, and Dr. Withers Moore, of Brighton, was chosen President-elect.—*The Lancet*, August 1, 1885.

GOOD HEALTH RESULTS FROM SANITARY WORK.—Sanitary authorities have claimed that the sanitary work which they have recommended to be done as a preparation for cholera—such as preventing and abating nuisances, attending to drains, sewers, privies, and cesspools, cleaning up generally, and unusual carefulness in regard to foods and drinks—would reduce the sickness and deaths from other diseases, even if cholera did not come. The weekly reports for July, 1885, to the Michigan State Board of Health by physicians in different parts of the State, indicate that this claim is being realized in Michigan, so far as relates to lessened sickness—it having been lessened from nearly every disease, and greatly lessened from fevers and from diarrhœa, and other diseases believed to be especially influenced by sanitary conditions; and this is true, notwithstanding the meteorological conditions in that month were rather more than usually unfavorable to health. It is proper to state, however, that the sickness in any month is influenced by the meteorological conditions in the preceding month, and that the meteorological conditions in June, 1885, were unfavorable to health.

Observations in Michigan for many years have shown that, in July, the meteorological conditions especially unfavorable to health are: High temperature, excessive humidity of the atmosphere, and deficiency of ozone. The bulletin of *Health in Michigan*, July, 1885, says: "For the month of July, 1885, compared with the average of corresponding months for the seven years—1879–1885—the temperature was slightly higher, the absolute and the relative humidity were more, and the day and the night ozone were less.

"Compared with the average for the months of July, in the seven years—1879–1885—remittent fever, intermittent fever, dysentery, consumption of lungs, cholera infantum, diarrhœa, cholera morbus, measles, and whooping-cough were less prevalent in July, 1885."

A large part of this decrease in sickness has undoubtedly been due to the medical and sanitary journals and the newspapers, which have constantly kept before the people the necessity for sanitary work, and the facts as to the spread of cholera in Europe.

It remains to be seen, to what extent efforts for the exclusion of cholera from this country, and the general preparation for cholera, by boards of health and the people, shall prove effectual; but, even if cholera shall not be entirely prevented, there will remain the belief that the measures which have so greatly decreased the sickness from other diseases cannot but have had their influence in decreasing it; and, if cholera does not occur in this country, it proves quite probable that, by reason of the suffering elsewhere, there may be as many cases of serious sickness prevented in this country as there have been cases of cholera in Europe. But this may not continue without continued vigilance and effort.

INSPECTION OF EMIGRANTS.—From reports received by the Marine-Hospital Service, it appears that the sanitary inspectors are more vigilant than ever before. Many emigrants are returned to the shore for lack of proper papers; and, in cases where they have come from infected districts, they are detained, and their baggage thoroughly disinfected, after which they are allowed to sail. No objection has been made to the practice by any foreign power, except France; and, notwithstanding her objections, since the recent outbreak of cholera was reported from Marseilles, the inspection at Havre was recognized.

ABOUT VESSELS FROM INFECTED PORTS ARRIVING AT PHILADELPHIA.—The following resolution was adopted this week by the Board of Health of Philadelphia:

Resolved, That all incoming vessels bound for the port of Philadelphia, from ports infected, or which may hereafter become so, including at present the Mediterranean and Portuguese Ports, and also all vessels which have or have had sickness on board since leaving the port of departure, shall be required to report at the United States Quarantine Station at the Delaware Breakwater, and that all pilots in charge of such vessels be and are hereby required to obey this order, under penalty of the law, before bringing such vessels into the Philadelphia Quarantine Station on the Delaware River.

YELLOW FEVER AT VERA CRUZ.—Vera Cruz is again suffering from yellow fever in an aggravated form. The

consul at that port applied to the State Department for an inspector; but, inasmuch as the fact is generally known that Vera Cruz is afflicted with yellow fever, health officers throughout the country view with suspicion all vessels arriving from that port, and treat them accordingly.

SMALLPOX EPIDEMIC IN MONTREAL.—The President of the Board of Health of Montreal has declared that smallpox is epidemic in that city. The City Hospital contains thirty-six patients, and a new wing is in progress of erection which will hold fifty more patients. It is not known how many are suffering from the disease in private dwellings.

The State Department has transmitted to the Secretary of the Treasury a communication from the Governor of Michigan to the effect that smallpox is prevailing to an alarming extent at Montreal, and suggesting that measures be taken immediately to prevent its introduction into the United States.

THE AMERICAN DERMATOLOGICAL SOCIETY will hold its ninth annual meeting under the Presidency of Doctor William A. Hardaway, of St. Louis, at Greenwich, Connecticut, on Tuesday, September 1st.

HONORS TO SIR JAMES PAGET.—The Royal College of Surgeons of England, at its meeting held on August 6, by a unanimous vote, in view of his many important services to the College, requested Sir James Paget to sit for a marble bust, to be executed at the expense of the College, and to be placed in some suitable position in the College buildings.

Mr. Hutchinson then gave notice of motion:

"That a committee be appointed to consider the practicability of adding a clinical wing to the Hunterian Museum, to be associated with the name of Paget, and to have for its especial, but not exclusive, object the display of casts, photographs, drawings, etc., illustrating the results of disease and injury in the living subject."

DR. GUSTAV BURGE has been invited to the Chair of Physiological Chemistry at the University of Basle.

NOTES AND QUERIES.

MERCURIAL TABLETS.

To the Editor of THE MEDICAL NEWS.

SIR: Permit me to call attention to the improved form of the mercurial tablets described in THE MEDICAL NEWS of December 27, 1884. They were first made without color, containing 7.3 grs. hydrarg. chlor. corros., and 7.7 grs. ammonium chlor., merely arbitrary quantities adopted for convenience in making solutions of a standard strength and of given quantity. As the tablets were similar in form and color to the ordinary tablets composed of innocuous preparations now so much in vogue, it was deemed best, on account of the dangerous character of these tablets, to give them a specific color, as an additional safeguard against possible accidents through carelessness in their use. This has been accomplished by the addition of one-fiftieth of a grain of C. P. green aniline. When the tablet is dissolved, this gives the solution a dark-green color. The chemical qualities are not altered by the addition of the aniline, and it does not interfere with the germicide power of the mercuric chloride. Aniline as a coloring matter is to be preferred to permanganate of potassa because it gives a more stable color. The latter resembles in color many harmless drugs, whilst the green color of the former serves as a danger signal to professional gentlemen and the laity alike.

Yours respectfully,

CHARLES MEIGS WILSON.

1517 WALNUT STREET, August 18, 1885.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM AUGUST 11, 1885, TO AUGUST 17, 1885.

CAMPBELL, JOHN, *Colonel and Surgeon.*—Granted leave of absence for one month.—*S. O. 184, A. G. O.*, August 13, 1885.

IVES, FRANCIS J., *First Lieutenant and Assistant Surgeon* (recently appointed).—Ordered for duty in Department of the Platte.—*S. O. 184, A. G. O.*, August 13, 1885.

WOLVERTON, W. D., *Major and Surgeon.*—Granted leave of absence for twenty days.—*Washington Barracks, D. C., S. O. 171 Department of the East*, August 14, 1885.

MAUS, L. M., *Captain and Assistant Surgeon.*—In addition to his other duties, assigned to duty as Attending Surgeon of the Department Rifle Camp.—*S. O. 83, Department of Dakota*, August 3, 1885.

CHAPIN, A. R., *First Lieutenant and Assistant Surgeon.*—Granted one month's leave, to take effect when services can be spared by Commanding General of Department of Missouri, with permission to apply for one month's extension.—*S. O. 179, A. G. O.*, August 6, 1885.

WALES, PHILIP G., *First Lieutenant and Assistant Surgeon* (Fort Cœur d'Alene, Idaho).—Ordered for temporary duty at Boise Barracks, Idaho.—*S. O. 130, Department of Colorado*, August 1, 1885.

APPOINTMENT.

KENDALL, WILLIAM P.—To be Assistant Surgeon U. S. Army, with the rank of First Lieutenant, to date from August 12, 1885.—*S. G. 181, A. G. O.*, Aug. 10, 1885.

AZFULL, THOMAS F., *Captain and Assistant Surgeon.*—Retired from active service August 10, 1885.—*S. O. 191, A. G. O.*, Aug. 10, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING AUGUST 15, 1885.

BEYER, H. G., *Passed Assistant Surgeon.*—To attend meeting of the American Association for Advancement of Sciences at Ann Harbor, Michigan, and at conclusion of meeting to resume duty at the Smithsonian Institute.

BOYD, JOHN C., *Passed Assistant Surgeon.*—From navy yard, Washington, D. C., to special duty at Bureau of Medicine and Surgery, Washington, Navy Department.

LIPPINCOTT, J. C., *Passed Assistant Surgeon.*—To navy yard, Washington, D. C., as relief of Passed Assistant Surgeon Boyd.

OWENS, THOMAS, *Assistant Surgeon.*—From special duty at Bureau of Medicine and Surgery, Navy Department, and waiting orders.

SAYRE, J. S., *Assistant Surgeon.*—From U. S. R. S. "Independence" to Naval Hospital, Mare Island, California.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE TWO WEEKS ENDING AUGUST 15, 1885.

BAILHACHE, P. H., *Surgeon.*—To proceed to Delaware Breakwater Quarantine as Inspector, August 15, 1885.

STONER, GEORGE W., *Surgeon.*—Granted leave of absence for thirty days, August 10, 1885.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*